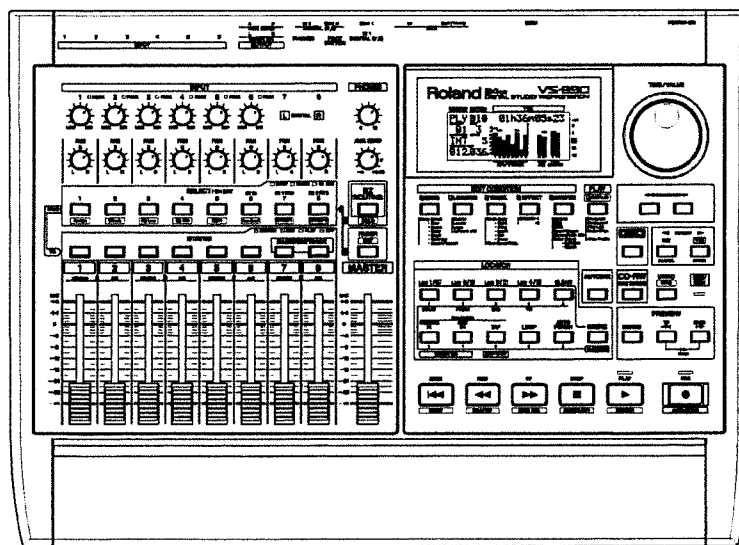# Roland®

24-bit DIGITAL STUDIO WORKSTATION

VS-890

USER GUIDE

Before using this unit, carefully read the sections entitled: "IMPORTANT SAFETY INSTRUCTIONS" (Owner's Manual p. 2), "USING THE UNIT SAFELY" (Owner's Manual p. 3, 4), and "IMPORTANT NOTES" (Owner's Manual p. 5). These sections provide important information concerning the proper operation of the unit. Additionally, in order to feel assured that you have gained a good grasp of every feature provided by your new unit, User Guide, Owner's Manual, and Appendices should be read in their entirety. The manual should be saved and kept on hand as a convenient reference.

Contents

Contents

Preparations

Required Preparations

The VS-890 is an audio recorder that allows multi-track recording to a hard disk. To make a multi-track recording, you will need at least the following items.

- VS-890 (1 unit)
- Power cable (1: included)
- Internal IDE hard disk (HDP88 series: sold separately in some countries)
- Audio device for master output or headphones (sold separately)
- Microphone or other audio source to record, such as an electric guitar, synthesizer, or CD player etc. (sold separately)

User Guide will also explain the use of the following equipment, which you may purchase as desired.

- External CD-RW drive (designated by Roland, sold separately)

Installing an Internal Hard Disk (HDP88 series)

Cautions Concerning Installation of Hard Disk Drive

- Always turn the unit off and unplug the power cord before attempting installation of the hard disk drive unit (model no. HDP88 series; User Guide p. 14).
- Install only the specified hard disk drive unit (model no. HDP88 series). Remove only the specified screws.
- To avoid the risk of damage to internal components that can be caused by static electricity, please carefully observe the following whenever you handle the hard disk.
  - Before you touch the hard disk, always first grasp a metal object (such as a water pipe), so you are sure that any static electricity you might have been carrying has been discharged.
  - When handling the hard disk, grasp it only by its edges. Avoid touching any of the electronic components or connectors.
  - Save the bag in which the hard disk was originally shipped, and put the hard disk back into it whenever you need to store or transport it.
- Use a Phillips screwdriver of a size appropriate for the head of the screw (a no.2 screwdriver). If the screwdriver is the wrong size, the screw heads may be stripped, or you may not be able to turn the screws.
- To remove the screws, rotate the screwdriver counterclockwise. To tighten the screws, rotate the screwdriver clockwise.
- Take care not to drop any screws into the interior of the VS-890's chassis.
- Do not touch any of the printed circuit pathways or connection terminals.
- Never use excessive force when installing a hard disk. If it doesn't fit properly on the first attempt, remove the hard disk and try again.
- When hard disk installation is complete, double-check your work.

loosen — tighten

In some countries, VS-890's do not come with the Hard Disk installed. The Roland HDP88 series hard disk (sold separately in some countries) can be installed in the VS-890. In order to take full advantage of the VS-890's functionality for the number of tracks that can be recorded/playback simultaneously, we recommend that you install an 2100 MB or higher model.

1

Turn off the power of the VS-890 and of all connected devices, and disconnect all cables from the VS-890.

2

Remove only the screws specified in the following diagram, and detach the front panel cover of the VS-890.
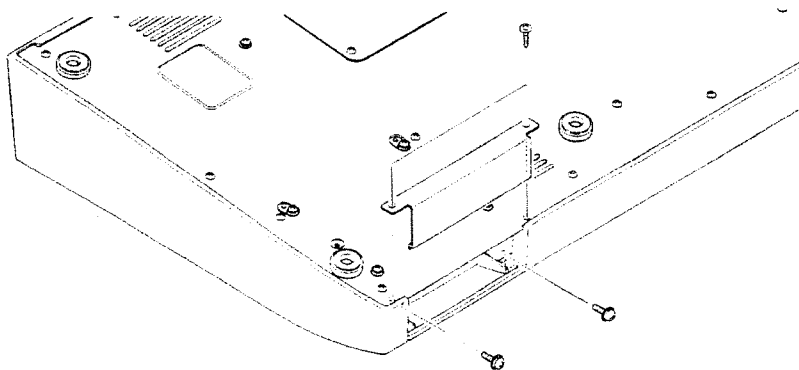
3

With the warning label of the hard disk facing upward, slide it gently into the installation bay as far as it will go. You can hook the indentation of the attachment hardware over the protrusion on the chassis of the VS-890.

4

When the hard disk has been pressed all the way in, use the screws that you removed to fasten the hard disk in place.

5

Fold down the handle on the front of the hard disk, and reattach the front panel cover as it originally was. This completes installation of the hard disk.

NOTE

To avoid malfunctions, you should remove the internal hard disk before transporting the VS-890. To remove the hard disk, reverse the procedure described in "**Installing an Internal Hard Disk (HDP88 series)**" (p. 5)". In particular when you ship the unit or when you move house, be sure to remove the hard disk from the VS-890, place the hard disk in its packing carton, and put it in its special place inside the VS-890 packing carton.
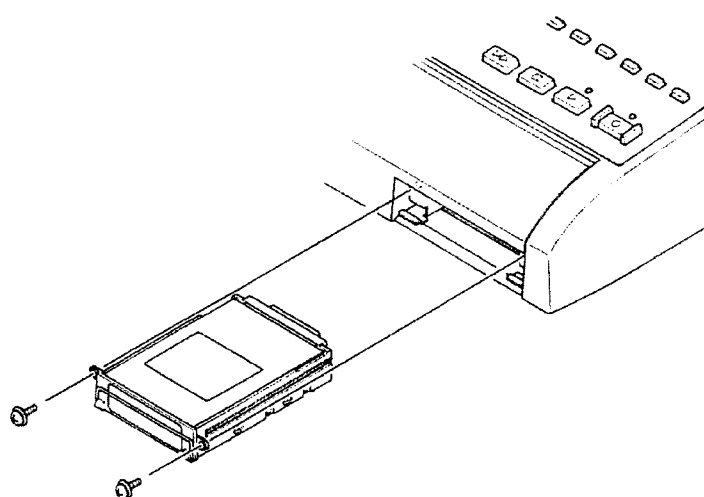
6 As described in "**Turning On the Power** (p. 11)", turn on the power and verify that the VS-890 starts up correctly.

If the Display Indicates "Init.Drive=NoDrv"

The internal hard disk was not recognized correctly. Use the rear panel power switch to turn off the power, and re-install the hard disk correctly.
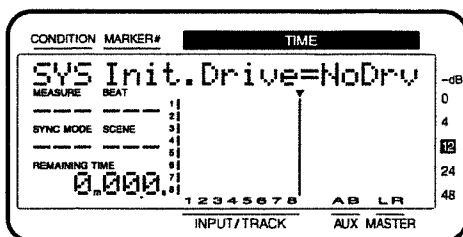
Installation de dispositifs optionnels

Précautions à prendre lors de l'installation de dispositifs optionnels

- Toujours éteindre et débrancher l'appareil avant de commencer l'installation de la carte. (modèle no série HDP88; User Guide p. 14).

- N'installez que les cartes de disque dur spécifiées (modèle no série HDP88). Enlevez seulement les vis indiquées.

- Veuillez suivre attentivement les instructions suivantes quand vous manipulez la carte afin d'éviter tout risque d'endommagement des pièces internes par l'électricité statique.

  - Toujours toucher un objet métallique relié à la terre (comme un tuyau par exemple) avant de manipuler la carte pour vous décharger de l'électricité statique que vous auriez pu accumuler.

  - Lorsque vous manipulez la carte, la tenir par les côtés. Évitez de toucher aux composants ou aux connecteurs.

  - Conservez le sachet d'origine dans lequel était la carte lors de l'envoi et remettez la carte dedans si vous devez la ranger ou la transporter.

- Utiliser un tournevis cruciforme correspondant à la taille de la vis (un tournevis numéro 2). En cas d'utilisation d'un tournevis inapproprié, la tête de la vis pourrait être endommagée.

- Pour enlever les vis, tourner le tournevis dans le sens contraire des aiguilles d'une montre. Pour resserrer, tourner dans le sens des aiguilles d'une montre.

- Veillez à ne pas laisser tomber de vis dans le châssis du VS-890.

- Ne pas toucher aux circuits imprimés ou aux connecteurs.

- Ne jamais forcer lors de l'installation de la carte de disque dur. Si la carte s'ajuste mal au premier essai, enlevez la carte et recommencez l'installation.

- Quand l'installation de la carte de disque dur est terminée, revérifiez si tout est bien installé.

Installer un disque dur (série HDP88)

Le VS-890 s'utilise avec un disque dur Roland de la série HDP88 vendu séparément. Pour maximiser les capacités du VS-890 -nombre de pistes lors des enregistrements et lectures simultanés ou taille de la mémoire-, il est conseillé d'utiliser un modèle supérieur au 2,100 MB.

1 Éteindre tous les appareils reliés au VS-890 et détacher tous les câbles qui y sont reliés.

desserrer / resserrer

2

Enlever les vis indiquées sur le schéma suivant et détacher la plaque avant du VS-890.

NOTE

Afin d'éviter d'infliger des dommages à l'appareil lors de déplacements, enlever le disque dur installé en suivant, dans le sens contraire, les étapes de son installation de la p. 6. Il est impératif d'enlever le disque dur du VS-890 lors de déménagement ou d'envoi. Lors de tels déplacements, ne pas oublier de bien remettre le disque dur dans son emballage d'origine et de placer le disque emballé dans l'espace prévu à cet effet dans la boîte d'emballage du VS-890.

3

Orienter le disque dur de façon à ce que la face sur laquelle est collée l'étiquette de mise en garde se trouve sur le dessus. Le diriger lentement vers son emplacement en s'assurant de bien l'enfoncer jusqu'au fond. Accrocher les parties en saillie du châssis du VS-890 aux fentes métalliques à cet effet.
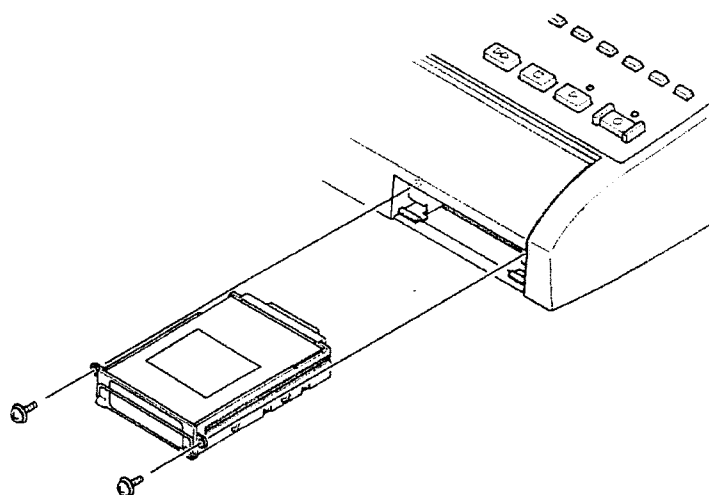
4

Après avoir replacé la poignée située sur le devant du disque dur, remettre la plaque avant. Ceci met fin à l'installation du disque dur.
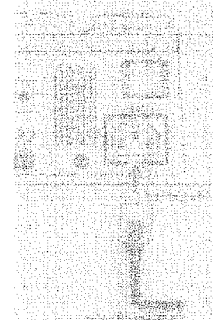
5 Allumer l'appareil en suivant les instructions à cet effet à la
p. 14 et s'assurer qu'il s'allume normalement.

> Les vis peuvent s'enlever avec les doigts. Si elles sont trop serrées pour être
> dévissées avec les doigts, vous pouvez utiliser une pièce de monnaie.
>
> Si le message "Init Drive=NoDrive" s'affiche, cela signifie que le disque dur
> installé n'est pas reconnu correctement. Éteindre l'appareil avec le bouton
> arrière et recommencer l'installation du disque dur.
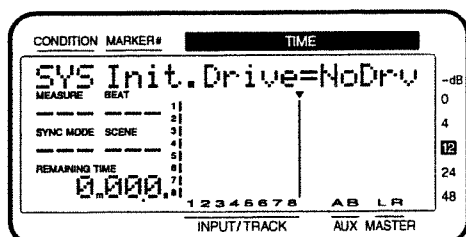
Basic Connections (Power Supply, Audio Devices and Headphones)
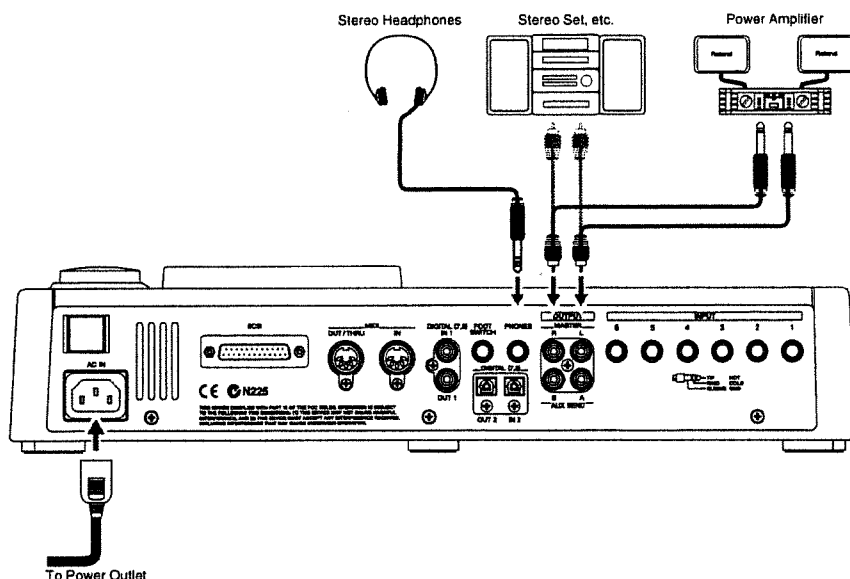
If you are using headphones, connect them to the rear panel PHONES jack.
When you purchase the VS-890, it will be set so that all analog audio signals
are output from the MASTER jacks.

NOTE

To prevent malfunction
and/or damage to speakers
or other devices, always
turn down the volume
before making any
connections.

Turning On the Power

1

The rear panel POWER switch turns on the power of the VS-890. When the VS-890 starts up correctly, the following display will appear.

```
CONDITION  MARKER#        TIME
Ply 000   00h00m00s00  -dB
MEASURE  BEAT    1  1      0
                   4
SYNC MODE  SCENE           12
INT ---                    24
REMAINING TIME             48
294.400  12345678  AB  LR
        INPUT/TRACK   AUX MASTER
```
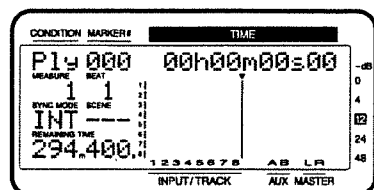
2

Turn on the power of your audio system.

3

Raise the volume of your audio system to an appropriate level.

Always make sure to have the volume level turned down before switching on power. Even with the volume all the way down, you may still hear some sound when the power is switched on, but this is normal, and does not indicate a malfunction.

If the Display Indicates "Init.Drive=NoDrv"

No hard disk is installed. In this case, the VS-890 cannot be used.

If this message appears even though a hard disk has been installed, the hard disk is not being detected correctly. Use the rear panel power switch to turn off the VS-890, check that the hard disk is installed properly.

```
CONDITION  MARKER#        TIME
SYS Init.Drive=NoDrv  -dB
MEASURE  BEAT              0
--- ---                4
SYNC MODE  SCENE           12
--- ---                24
REMAINING TIME             48
0.000  12345678  AB  LR
        INPUT/TRACK   AUX MASTER
```

NOTE
Once the connections have been completed (p. 10), turn on power to your various devices in the order specified. By turning on devices in the wrong order, you risk causing malfunction and/or damage to speakers and other devices.

NOTE
When the power is turned on, the disk drive will be detected, and necessary data will be read. For this reason there will be an interval of time before operation can begin.

Adjusting the Display Contrast

The text in the VS-890's display may be difficult to read immediately after the unit is turned on or after it has been used for long periods, or depending on the environment in which the unit is used. If this occurs, adjusting the display contrast.

1
Press **[SYSTEM]** several times until "SYS System PRM ?" appears in the display.

2
Press **[YES (ENTER)]**.

3
Press [◄◄][►►] several times until "SYS LCD Contrast=" appears in the display.

MEMO
You can adjust the display contrast to hold down **[PLAY (DISPLAY)]** and rotate **TIME/VALUE dial.**

4
Rotate the **TIME/VALUE dial**.

If You Do Not Understand the Display or Don't Know What to Do

If an unfamiliar display appears or if you do not know how you arrived at the current condition, press **[PLAY (DISPLAY)]**. This will return you to the initial power-on screen, allowing you to re-do the procedure from the beginning.
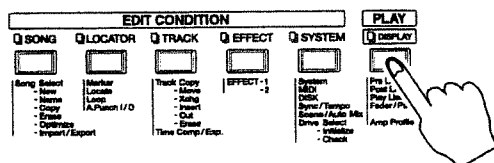
- If you attempt to perform an incorrect operation or if the specified operation cannot be executed, an error message will appear in the display. Please refer to "Error Messages" (Appendices p. 9) and take the appropriate action.
- If the results are not as described in the User Guide or Owner's Manual even though you have followed the specified steps, please refer to "Troubleshooting" (Appendices p. 5).
- If the information in "Troubleshooting" does not resolve the problem, contact a nearby Roland Service Center or authorized Roland Distributor.

Mixer and System Initialize

You can restore the default parameter settings of a song. This is convenient when you have made many changes to the Input Mixer, the Track Mixer, the Master Block, as well as changes in the System Menu screens, and you want to quickly restore the VS-890 to its default settings.

1

Press **[SYSTEM]** several times until "SYS System PRM ?" appears in the display.

2

Press **[YES (ENTER)]**.

3
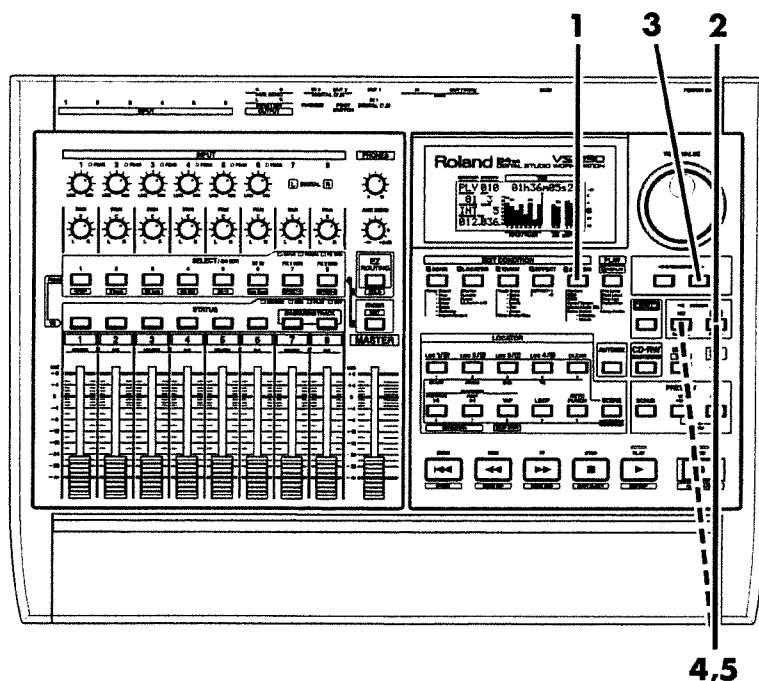
Press **[◄◄][►►]** several times until "Init Mix/SysPRM ?" (Do you want to restore the initial mixer and system parameters ?) appears in the display.

4

Press **[YES (ENTER)]**. A message will ask you to confirm that you really want to restore the mixer to the initial setting. If you want to cancel the operation, press **[NO (CANCEL)]**.

5

Press **[YES (ENTER)]**. To Cancel the operation press **[NO (CANCEL)]**. When the mixer settings return to the initial state, you will be in Play condition.

Turning Off the Power

If you simply turn off the power, not only can recorded content be lost, but the VS-890 itself could malfunction. In order to safeguard the recorded performance and turn off the power safely, you must perform the Shutdown procedure when you are finished.

? Shutdown (Appendices p. 13)
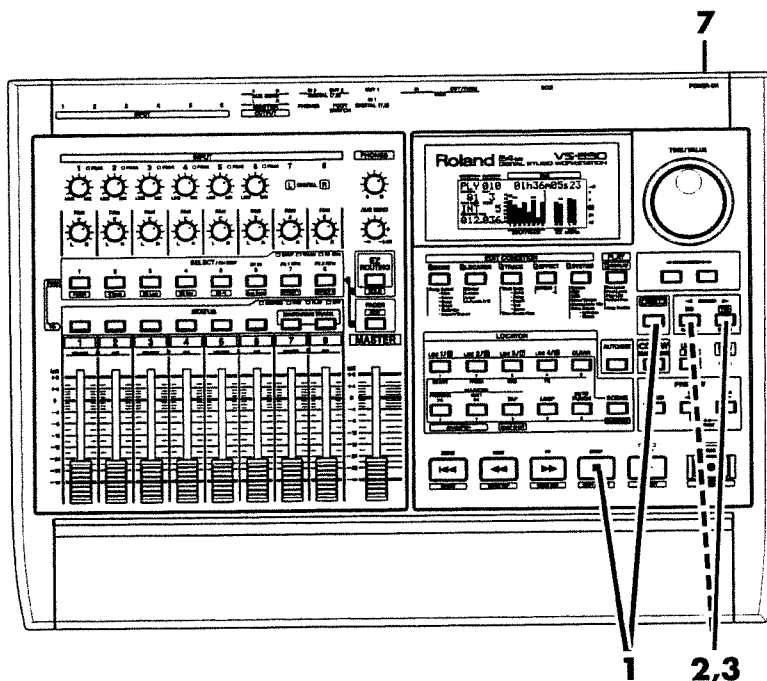
1 Hold down **[SHIFT]** and press **[SHUT/EJECT (STOP)]**.

2 "SHUT / EJECT ?" will be displayed. Press **[YES (ENTER)]**.

3 "STORE Current ?" (store the current song?) will be displayed. If you wish to store the currently selected song, press **[YES (ENTER)]**. If you do not need to save it, press **[NO (CANCEL)]**.
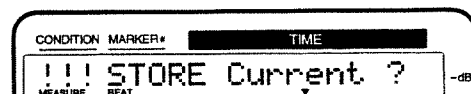
MEMO When a non-VS-890 type of song (such as one in the VS-880 or VS-880EX format) is selected as the current song, "STORE Current" will not be displayed.

☞ For details refer to "Protecting Songs (Song Protect)" (Owner's Manual p. 76)

4

When the shutdown procedure ends correctly, the display will indicate "PowerOFF/RESTART" (turn off the power / restart).

```
┌─────────────────────────────────────────┐
│ CONDITION  MARKER#  ████████ TIME ██████ │
│ ┌──────────────────────────────────────┐ │
│ │ *** PowerOFF/RESTART           │ -dB │
│ │ MEASURE  BEAT            ▼           │ │
└─────────────────────────────────────────┘
```

5

Lower the volume of your audio equipment.

6

Turn off the power of your audio equipment.

7

Use the rear panel POWER switch to turn off the VS-890.

If "STORE Current?" is Displayed

When you execute various operations (including Shut-Down), "STORE Current?" (Store the current song?) may be displayed. This message asks whether or not you wish to store the currently selected song to disk. If you wish to store the song before continuing with the operation, press **[YES (ENTER)]**. If you do not need to save the song (i.e., if you wish to discard the recording and editing that was done up to that point, and revert to the condition in which the song was last saved), press **[NO (CANCEL)]**.

```
┌─────────────────────────────────────────┐
│ CONDITION  MARKER#  ████████ TIME ██████ │
│ ┌──────────────────────────────────────┐ │
│ │ !!! STORE Current ?            │ -dB │
│ │ MEASURE  BEAT            ▼           │ │
└─────────────────────────────────────────┘
```

NOTE

After the power is turned off, the hard disk will continue rotating for a time due to inertia. During this time, applying physical shock to the VS-890 may damage the disk. Before moving a VS-890 that contains a hard disk, wait approximately 30 seconds after turning off the power.

MEMO

When a non-VS-890 type of song (such as one in the VS-880 or VS-880EX format) is selected as the current song, "STORE Current" will not be displayed.

?

Current Song (Appendices p. 13)

Listening to the Demo Songs

The VS-890 contains pre-recorded demo songs. Here's how to listen to the demo songs.

Playing Back the Demo Song
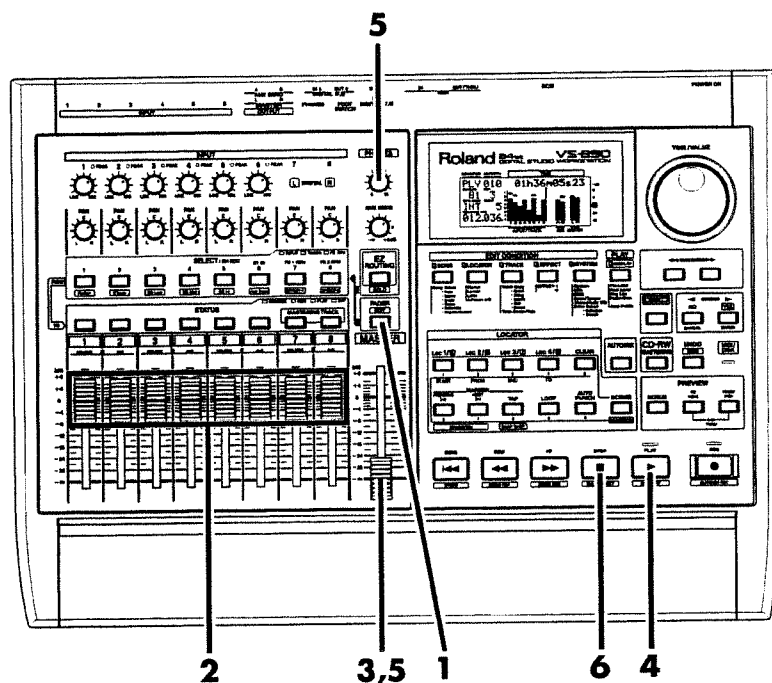
1
Press **[FADER (EDIT)]** several times to let the FADER indicator light green (Track Mixer).

2
Move all channel faders to the 0dB position.

3
Pull the master fader all the way down.

4
Press **[PLAY]**. The demo song will be playback.

5
Slowly raise the master fader to adjust the volume. The playback time, level meters etc. will be displayed. To adjust the volume of the headphones, rotate the **PHONES knob**.
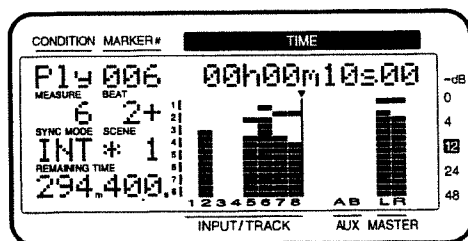
6 When playback ends, press **[STOP]**. The demo playback will stop.

Viewing the Level Meters

In Play condition, you can hold down **[SHIFT]** and press **[DISPLAY (PLAY)]** to switch the contents of the level meters or playlists.

Pre Level

The volume level of each channel immediately after it has passed through ATT (attenuator) will be displayed. This means that the level meter display will not change even if you adjust the equalizer (p. 61) or the volume level (p. 18).
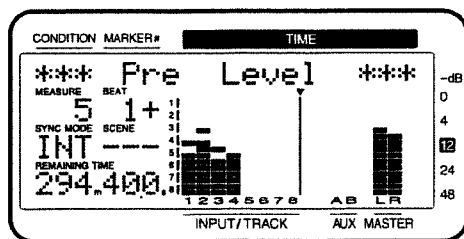
Post Level

The volume level of each channel after it has passed through Mix Level will be displayed. When you adjust the mix level (p. 59), the level meter display will change accordingly.

NOTE
The AUX and MASTER fields indicate the respective volume levels of the signal after passing through the **AUX Level** and the **MasterLevel**.
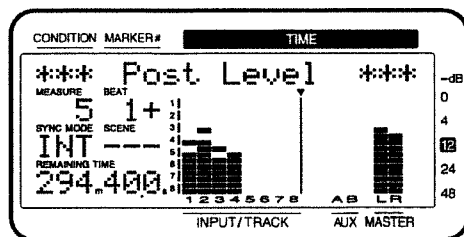
Play List

The way in which sound is recorded in the various tracks before and after the current time will be displayed.

```
CONDITION  MARKER#          TIME
****  Play List.  ****    -dB
MEASURE  BEAT                     0
    5   1+ :!                    4
SYNC MODE  SCENE :!             12
INT ---  :!                     24
REMAINING TIME :!               48
294,400.:!  1 2 3 4 5 6 7 8  A B  L R
              INPUT/TRACK   AUX MASTER
```
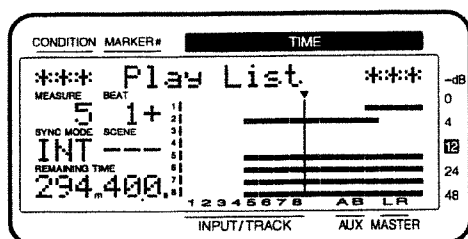
Fader/Pan

The settings of the Master Level, and the Mix Pan and the Mix Level of each channel will be displayed.

```
CONDITION  MARKER#          TIME
****  Fader / Pan  ****   -dB
MEASURE  BEAT                     0
    5   1+ :!                    4
SYNC MODE  SCENE :!             12
INT ---  :!                     24
REMAINING TIME :!               48
294,400.:!  1 2 3 4 5 6 7 8  A B  L R
              INPUT/TRACK   AUX MASTER
```
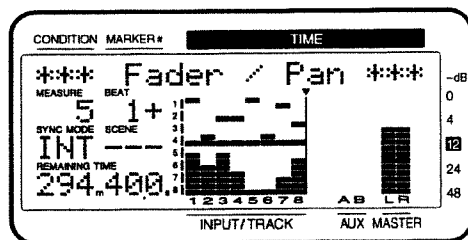
☞ For details refer to "Mixer Section Block Diagram" (Appendices)

Adjusting the Overall Volume

To adjust the overall volume of the performance, use the MASTER fader.

Adjusting the Volume of an Individual Track

1 Press **[FADER (EDIT)]** several times to let the FADER indicator light green (Track Mixer).

2 Use the **channel faders**.

Adjusting the Headphone Volume

To adjust the volume of the headphones, use the **PHONES knob**.

Listening to the Demo Song with a Different Arrangement (Scene)

Demo songs contain several completely different sets of settings for pan, playback track, and effects etc. These settings are collectively called a scene. By recalling different scenes or changing the scene while you playback a demo song, you can hear the demo song arranged in different ways. Here's how you can listen to various arrangements of the demo.

3   1,5 2,7   4
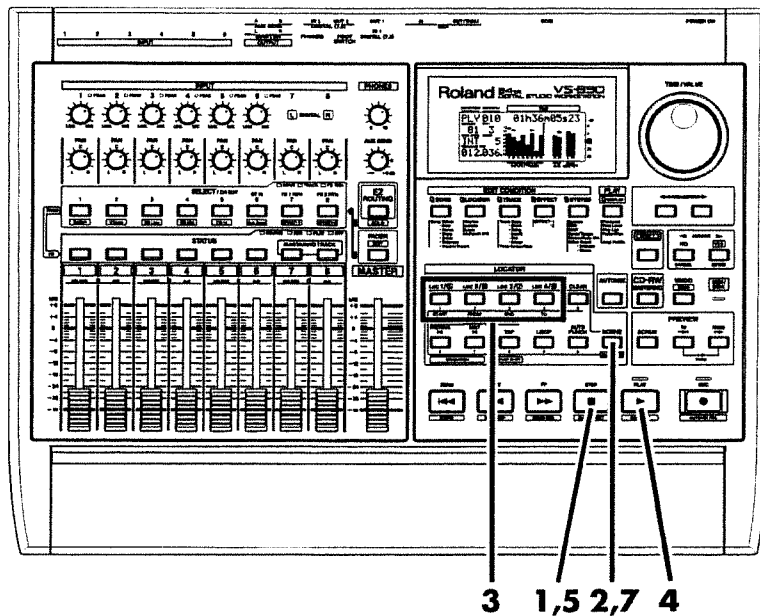
1   Press **[STOP]**.

2   Press **[SCENE]**. The button indicator will light.

3   Of the **[LOC]** ([1]-[8]) buttons, select and press a button whose indicator is lit. If you wish to recall scene2, press **LOC [2]**.

NOTE
Please stop playback before you switch scenes.

4   Press **[PLAY]**. The song will be playback. Notice that the arrangement of the demo song is different.

5   Press **[STOP]**. Playback will stop.

6   Repeat steps 3–5 to hear and compare various arrangements of the demo song.

7   When hear and compare ends, press **[SCENE]**. The button indicator will go dark.

For details refer to "Storing Mixer Settings" (Owner's Manual p. 45)

Making a Multi-Track Recording

This chapter explains the basic procedure for recording on the VS-890.
Please follow through these steps to understand the procedure.

Regarding Hard Disk Partition Size

When purchased, the hard disk (HDP88 series) is divided (partitioned) into
1,000 MB units. If you are using a hard disk that is 2100 MB or larger, the
VS-1680 demo song "SEEMS SO RIGHT" will also be saved but this cannot
be playback by the VS-890. The total size of these demo songs is
approximately 490 MB, so the space that can actually be used is
approximately 510 MB.
If you wish to record for a longer time, you can switch the partition (e.g.,
IDE:0 → IDE:1). If you are using a 2100 MB or larger hard disk, switch
partitions before you continue with the operations of this chapter
(multitrack recording) so that you will have a longer recording time
available (p. 23).
If you wish to completely delete "SEEMS SO RIGHT" from the hard disk to
increase the available space, you can initialize the hard disk (p. 69). At this
time, all songs that are saved on the hard disk (including the VS-880 demo
song) will be erased, and cannot be recovered. As necessary, back up the
songs to a CD-RW disc (p. 126).

?
CD-RW (Appendices p. 12)

Creating a New Song (Song New)

2 1 5 4,6 3
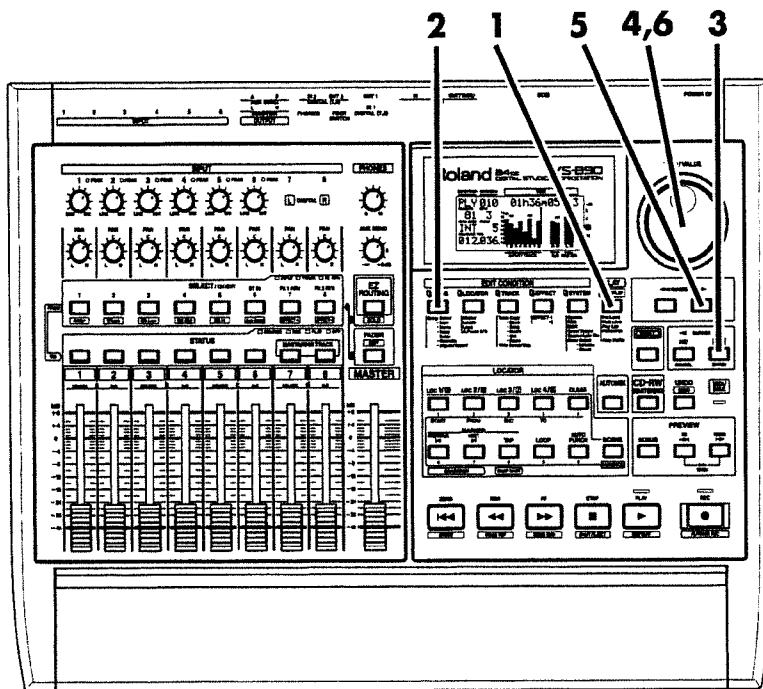
NOTE
Recording operations
cannot be performed when
the demo song is selected.
This is because the demo
song is protected so that its
contents cannot be
modified (Song Protect,
Owner's Manual p. 76). In
order to record, use the
following procedure to
prepare a new song. This is
analogous to putting a new
tape into a tape-type multi-
track recorder.

1   Press [**PLAY (DISPLAY)**].

2
Press **[SONG]** several times until "SNG Song New ?" appears in the display.

3
Press **[YES (ENTER)]**.

4
"SNG SampleRate =" appears in the display. Use the **TIME/VALUE dial** to select the sample rate. **If you will be creating an original audio CD, choose "44k (44.1kHz)."**

```
 CONDITION  MARKER#  ▌▌▌▌▌▌      TIME      ▌▌▌▌▌▌
│ SNG SampleRate=    44k │ -dB
  MEASURE   BEAT               ▼
```

Sample Rate

Select a sample rate (32.0kHz, 44.1kHz, or 48.0kHz). You cannot change the sample rate after the song is recorded. In addition, you cannot mix different sample rates in the same song.

5
Press **PARAMETER [►►]**.

6 ،
Use the **TIME/VALUE dial** to select the Recording Mode (VSR, CDR, MAS, MT1, MT2, LIV). If you will be creating an original audio CD, choose "MT1."

```
 CONDITION  MARKER#  ▌▌▌▌▌▌      TIME      ▌▌▌▌▌▌
│ SNG Record Mode= MT1 │ -dB
  MEASURE   BEAT               ▼
```

MEMO
When 48 kHz is selected, simultaneous recording is limited to six tracks (eight tracks can be played back simultaneously).
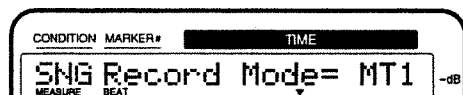
Record Mode

Select the sound's quality and time based on the recorded contents. Once a song is recorded, these settings cannot be changed.

VSR: Compatible with professional-quality equipment (digital mixers, digital effects processors, etc.). The high-quality sound can be worked with - recorded and edited - as is, with no loss of sonic quality when playback or output.

CDR: This format allows you to omit the step of conversion to an image file when creating an audio CD (p. 119). **When this mode is selected, the unit will function as a four-pair stereo recorder (Channel Link on: tracks a-d).**

MAS: With this setting, you can get the high-quality sounds compatible to that's quality of CD player or DAT recorder. This mode is appropriate when recording edited two-channel stereo songs.

MT1: While maintaining high-quality sound, recording time is approximately twice that available in "MAS" mode. This mode is good when doing a lot of track bouncing.

MT2: While maintaining high-quality sound, recording time is longer than that available in "MT1" mode. This mode is good for normal operations.

LIV: Recording time is longer than with "MT2" mode. This mode is appropriate when your hard disk lacks much free space or when recording live performances.

7

8,9
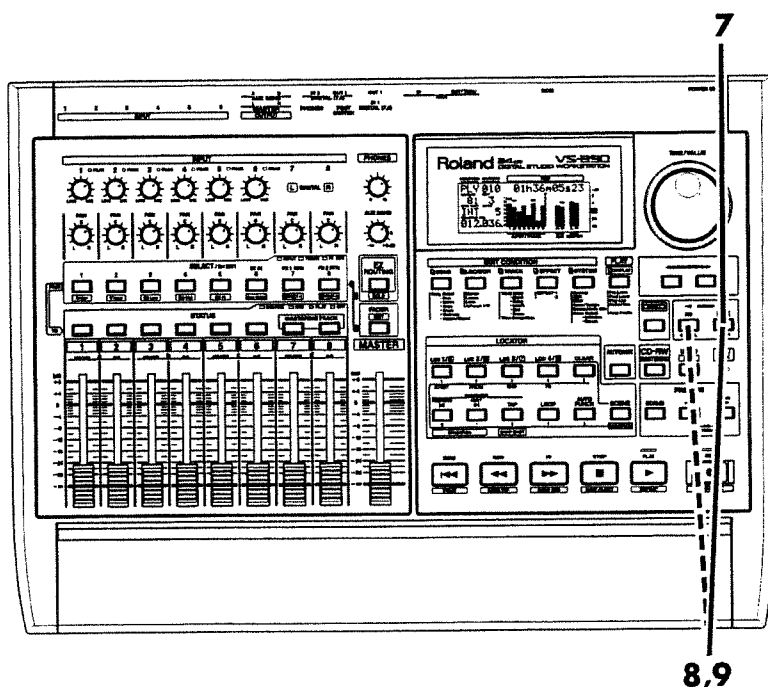
7   Press **[YES (ENTER)]**. "Create NewSong?" appears in the display.

For details refer to "Creating a New Song (Song New)" (Owner's Manual p. 47)

8
Press **[YES (ENTER)]** again. "Create New-Sure?" appears in the display.

9
Press **[YES (ENTER)]** again. "STORE Current?" appears in the display.If you wish to save the current song, press **[YES (ENTER)]**; if not, press **[NO (CANCEL)]. If you have selected a protected song, then press [NO (CANCEL)]**.

10
When a new song has been created, you will return to Play Condition. The newly created song will be selected as the song for recording/playback.

About Recording Time

The recording time (track minutes) of both sampling rate and recording mode are as shown below (for 1 track, with 3.2 GB hard disk, 1GBx3 partitions, unit:minutes).

Recording Mode	48.0kHz	Sample Rate 44.1kHz	32.0kHz
VSR	371+371+371	404+404+404	557+557+557
CDR/MAS	185+185+185	202+202+202	278+278+278
MT1	371+371+371	404+404+404	557+557+557
MT2	495+495+495	539+539+539	742+742+742
LIV	594+594+594	646+646+646	891+891+891

If "Drive Busy!" is Displayed

If this message appears during recording or playback, it means that the disk drive cannot catch up with the data read/write speed. In such instances, create a new song which lower the sample rate or recording mode from their current settings, and record over.

NOTE
The contents of the protected songs cannot be changed or overwritten (Song Protect; (p. 66)). You cannot record, edit, save, or other such operations with the protected song. This means if you press **[YES (ENTER)]** at Step 9 when a protected song is selected, the message "SONG Protected" will appear, and the procedure cannot be continued.

NOTE
The chart is a general yardstick for estimating recording times. Actual times may be somewhat shorter depending on your hard disk's specifications or the number of songs created.

For details refer to "Creating a New Song (Song New)" (Owner's Manual p. 47)

Song Numbers

On the VS-890, management of song data is accomplished by assigning a song number to every song that is saved. Newly created songs are given the lowest currently available number. For example, if all numbers up to song number 5 are already assigned, then the number 6 is taken by the new song.

```
┌─────────────────┐          ┌─────────────────┐
│   Disk Drive    │          │   Disk Drive    │
│ ┌─────────────┐ │          │ ┌─────────────┐ │
│ │ InitSong 001│ │          │ │ InitSong 001│ │
│ └─────────────┘ │          │ └─────────────┘ │
│ ┌─────────────┐ │          │ ┌─────────────┐ │
│ │ InitSong 002│ │          │ │ InitSong 002│ │
│ └─────────────┘ │          │ └─────────────┘ │
│ ┌─────────────┐ │  ──────▶ │ ┌─────────────┐ │
│ │ InitSong 003│ │          │ │ InitSong 003│ │
│ └─────────────┘ │ Song New │ └─────────────┘ │
│ ┌─────────────┐ │          │ ┌─────────────┐ │
│ │ InitSong 004│ │          │ │ InitSong 004│ │
│ └─────────────┘ │          │ └─────────────┘ │
│ ┌─────────────┐ │          │ ┌─────────────┐ │
│ │ InitSong 005│ │          │ │ InitSong 005│ │
│ └─────────────┘ │          │ └─────────────┘ │
│                 │          │ ┌─────────────┐ │
│                 │          │ │ InitSong 006│ │
│                 │          │ └─────────────┘ │
└─────────────────┘          └─────────────────┘
```
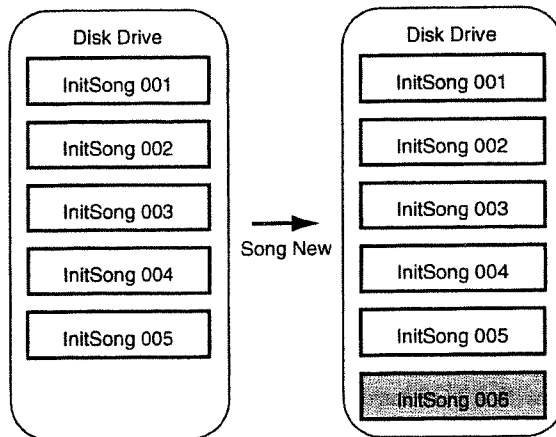
Furthermore, even if song numbers up to 5 are occupied, if Song 3 is deleted, then the new song is given that now lowest vacant number.

```
┌─────────────────┐          ┌─────────────────┐
│   Disk Drive    │          │   Disk Drive    │
│ ┌─────────────┐ │          │ ┌─────────────┐ │
│ │ InitSong 001│ │          │ │ InitSong 001│ │
│ └─────────────┘ │          │ └─────────────┘ │
│ ┌─────────────┐ │          │ ┌─────────────┐ │
│ │ InitSong 002│ │          │ │ InitSong 002│ │
│ └─────────────┘ │  ──────▶ │ └─────────────┘ │
│                 │          │ ┌─────────────┐ │
│                 │          │ │ InitSong 003│ │
│                 │ Song New │ └─────────────┘ │
│ ┌─────────────┐ │          │ ┌─────────────┐ │
│ │ InitSong 004│ │          │ │ InitSong 004│ │
│ └─────────────┘ │          │ └─────────────┘ │
│ ┌─────────────┐ │          │ ┌─────────────┐ │
│ │ InitSong 005│ │          │ │ InitSong 005│ │
│ └─────────────┘ │          │ └─────────────┘ │
└─────────────────┘          └─────────────────┘
```
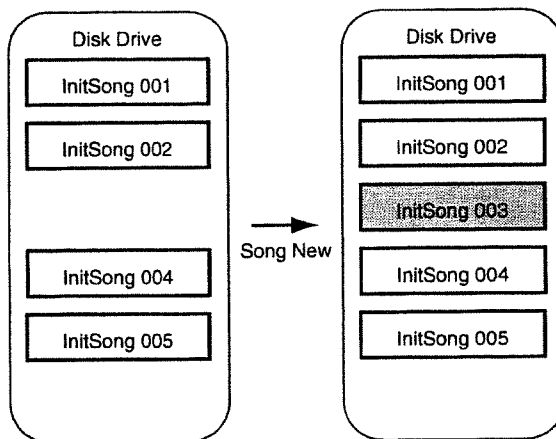
Selecting a Song (Song Select)

The VS-890 contains multiple demo songs. Use the following procedure to select a song.

1

Press **[PLAY (DISPLAY)]**.

2
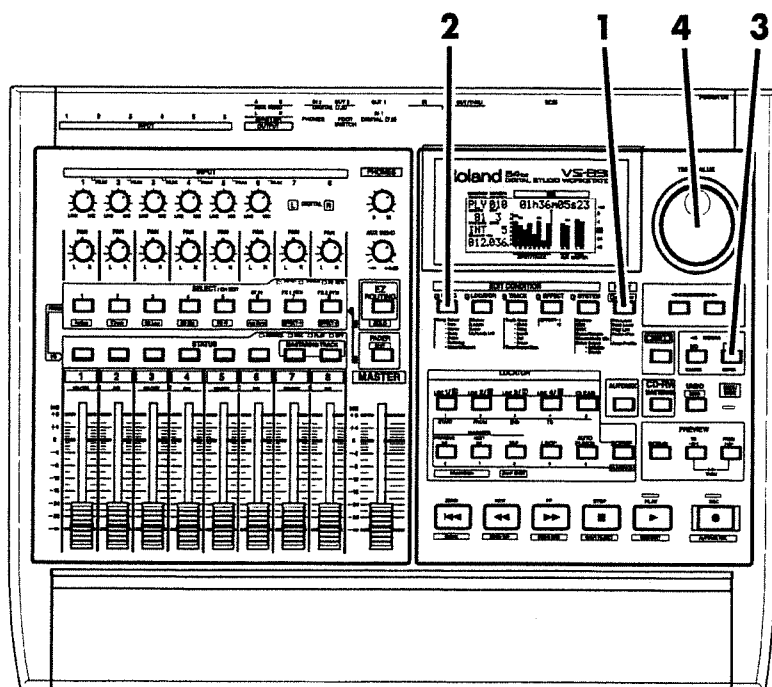
Press **[SONG]** several times until "SNG Song Select ?" appears in the display.

3

Press **[YES (ENTER)]**.

4

Use the **TIME/VALUE dial** to appear the song name that you wish to select. An asterisk "*" will be displayed at the beginning of the current song.
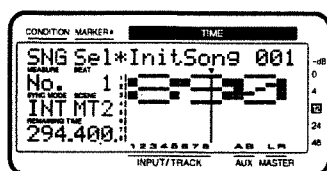
📖 For details refer to "Compatibility with Other VS Recorders" (Owner's Manual p. 150)

Different types of songs (for the VS-1680, the VSR-880, the VS-880, and VS-880EX) are distinguished by different icons.

5,6

7
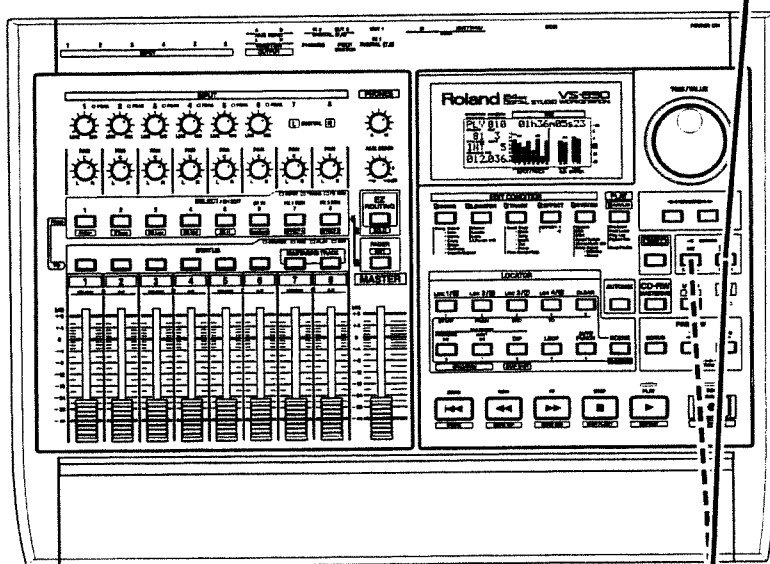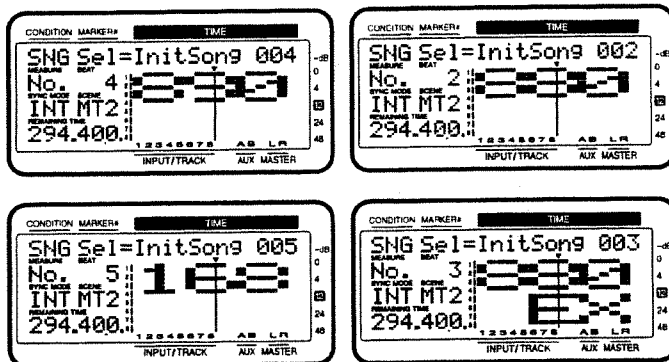
5

Press **[YES (ENTER)]**. "SelectSong Sure?" (Are you sure that you want to select this song?) will be displayed.

6

Press **[YES (ENTER)]** again. "STORE Current?" (Store the current song?) will be displayed.

NOTE

The contents of the protected songs cannot be changed or overwritten (Song Protect; (p. 66)). You cannot record, edit, save, or other such operations with the protected song. This means if you press **[YES (ENTER)]** at Step 7 when a protected song is selected, the message "SONG Protected" will appear, and the procedure cannot be continued.

7

If you wish to save the current song, press **[YES (ENTER)]**. If not, press **[NO (CANCEL)]**. **If you have selected a protected song, then press [NO (CANCEL)].**

8

The song will be selected, and you will return to the Play condition.

Changing the Name of the Song (Song Name)

When you create a song, it will automatically be given a name like "InitSong001." However this makes it difficult to remember what song it is. We recommend that you assign a unique name to your song so that data management will be easier.

2

1
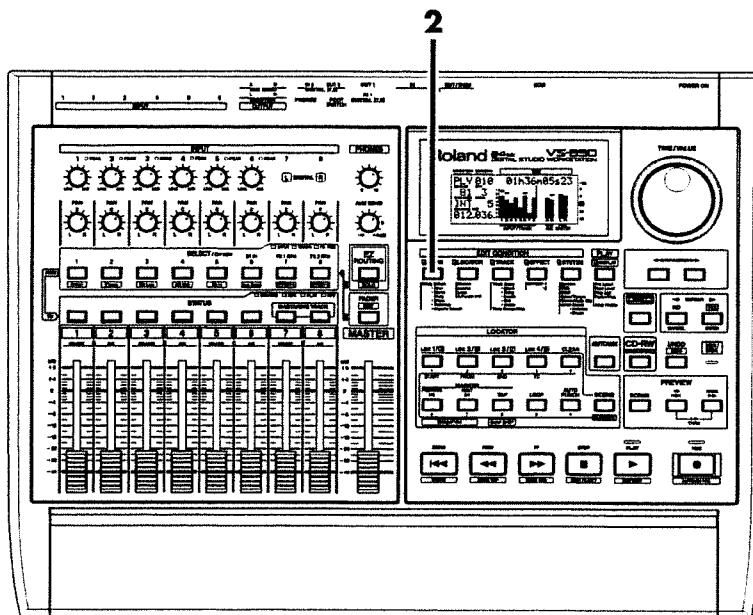
Make the song whose name you want to change the current song.

2

Press **[SONG]** several times until "SNG Song Name/Prtct ?" appears in the display.

8 5 3,7

6 4

3
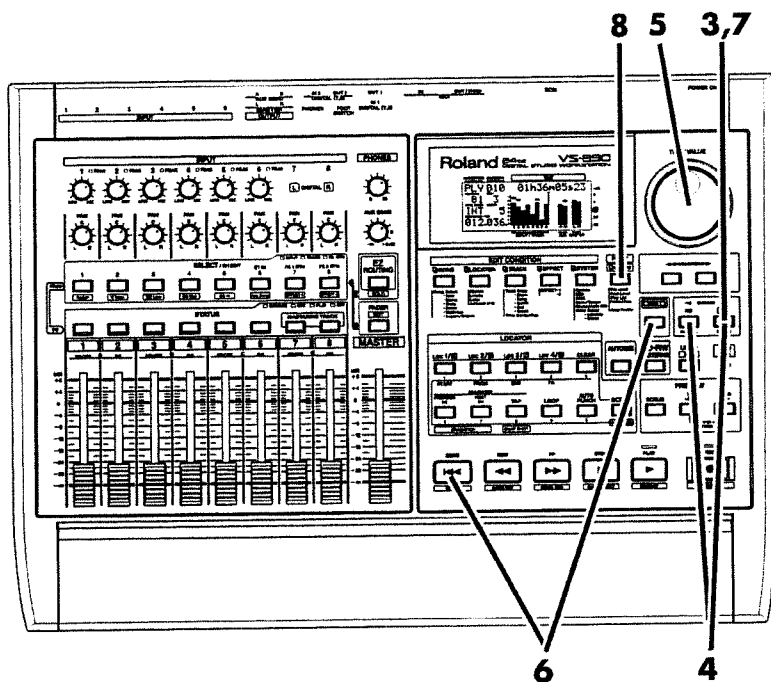
Press **[YES (ENTER)]**. The name of the song (Song Name) appears in the display.

4

Move the cursor so that the character that you wish to modify will blink. Press [◄] or [►].

5

Modify the character. Rotate the **TIME/VALUE dial**. By holding down **[SHIFT]** as you rotate the **TIME/VALUE dial** you can make the characters change more rapidly.

6

When you have finished writing the song name or comments, hold down **[SHIFT]** and press **[STORE (ZERO)]**. "STORE OK ?" appears in the display.

7

Press **[YES (ENTER)]**. The song is saved.

8

Press **[PLAY (DISPLAY)]**. Return to Play condition.

Connecting Instruments

Here we will explain how to connect musical instruments and a microphone and make a multi-track recording. One mic will record the vocal, and Input 1 will record the electric guitar.

2

1
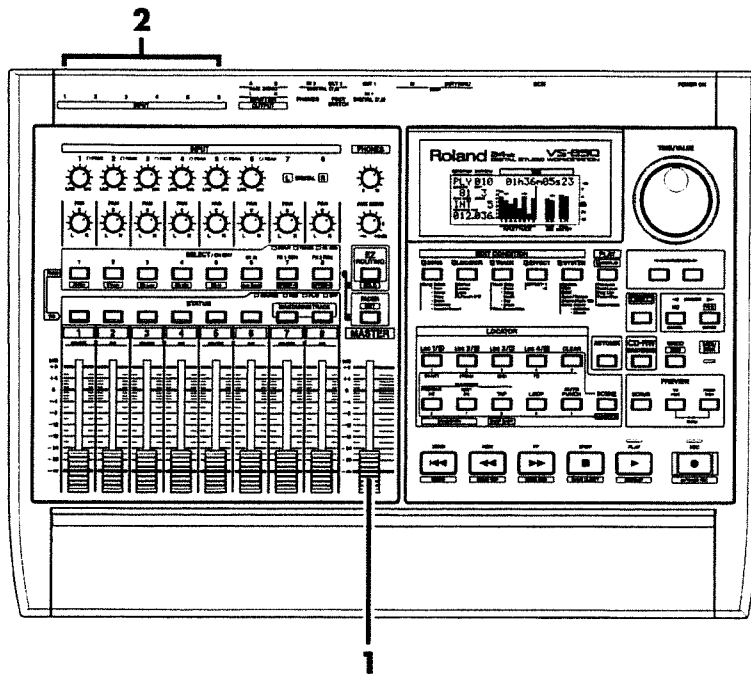
1

Lower the master fader of the VS-890 to the minimum position.

2

Connect instruments and microphones to the INPUT jacks.
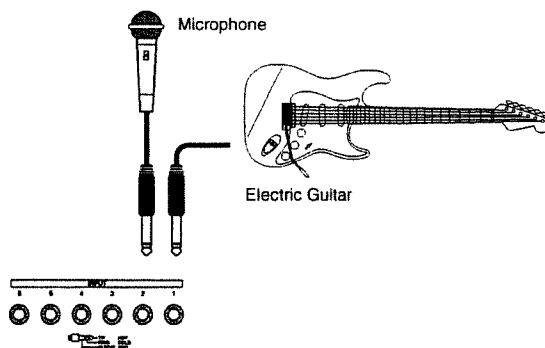
Microphone

Electric Guitar

MEMO

In order to record the electric guitar with the best possible sound quality, please use an active type guitar. Alternatively, use a direct box (such as the BOSS DI-1) or a compact type effect unit. In this case, the compact effect unit will be used to lower the impedance. When you do not want to use an effect provided by a compact effects unit, have its **power switched on, and the effect switched off** (THRU status).

Cautions When Connecting Microphones

- Depending on the location of a microphone relative to your speakers, acoustic feedback (a whining or shrieking sound) may occur. If this occurs, take the following steps.

1. Point the microphone in a different direction

2. Move the microphone away from the speaker

3. Lower the volume

Adjusting the Input Sensitivity

If you can adjust the volume of the recording source (mixer or electronic musical instrument) connected to the VS-890, you should adjust the volume of the recording source to set the recording sensitivity. If you cannot adjust the volume on the recording source, or if you wish to make fine adjustments to the recording sensitivity, use the following procedure.
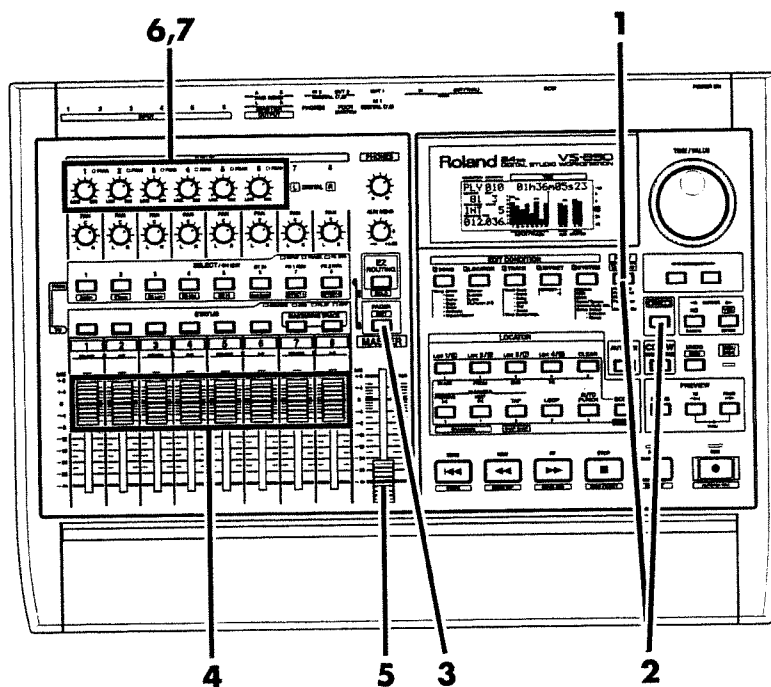
1 Press [PLAY (DISPLAY)].

2 Hold down [SHIFT] and press [PLAY [DISPLAY] several times until "Pre Level" appears in the display.

3 Press [FADER (EDIT)] several times to let the FADER indicator light orange. (Input Mixer)

4
Move all channel faders to the 0 dB position.

5
Gradually raise the master fader to adjust the volume.

6
Adjust the input sensitivity, with the INPUT knob of the channel input assigned as the source.

7
Get a strong input signal by having instrument volumes as high as possible. At this time, raise the volume level as much as possible without making the PEAK indicator light up. Normally, **this range is adjusted that the level meter moves within -12 to 0 dB when the channel fader is set to 0dB**.

Recording On a Track

This section explains the procedure for the INPUT1 jack to record an electric guitar performance to track 1.

1
Press **[PLAY (DISPLAY)]**.
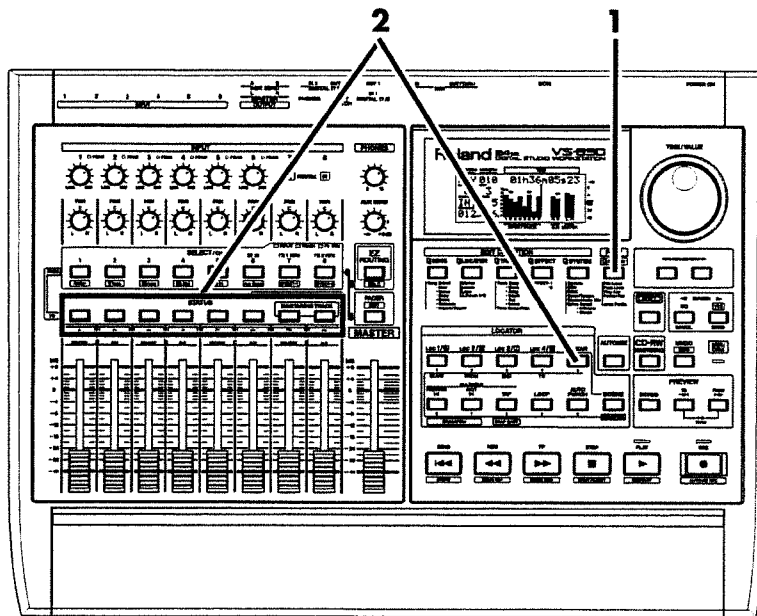
2
Hold down **[STATUS]** (any track is OK) and press **[CLEAR]**.
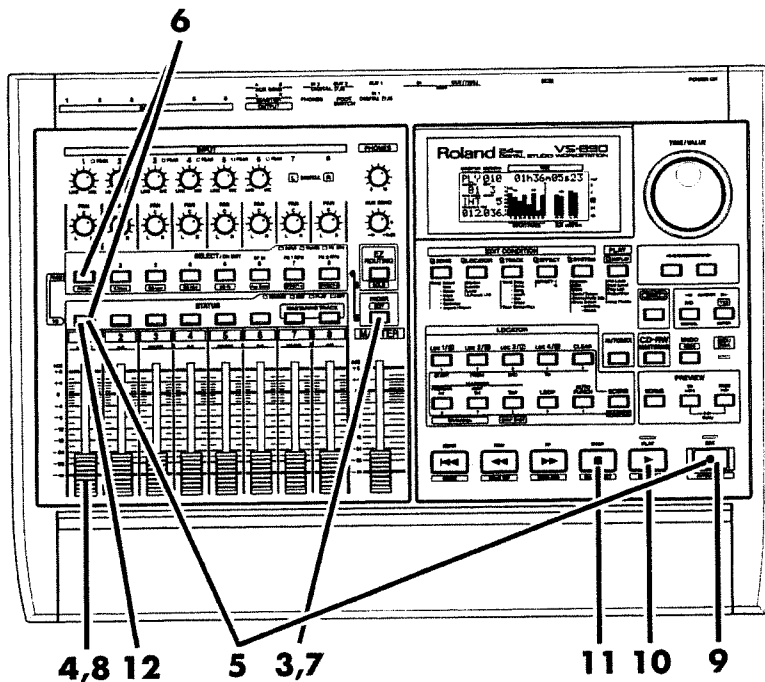
3 Press **[FADER (EDIT)]** several times to let the FADER indicator light orange. (Input Mixer)

4 Raise and lower channel fader 1, and verify that the volume changes. The input channel fader is used to make fine adjustments to the recording level. In order to record with the optimal audio quality, you should normally set the fader at 0dB.

5 Select the recording track. Hold down **[REC]** and press the **[STATUS]** button of the desired track. For this example, hold down **[REC]** and press the track 1 **[STATUS]** button. **[STATUS]** will blink red. (ready to record)

6 Select the source that will be recorded to the track. Hold down the **[STATUS]** button of the track you wish to record, and press the **[SELECT (CH EDIT)]** button of the input channel that you wish to assign as the source. For this example, hold down track 1 **[STATUS]** and press input channel 1 **[SELECT (CH EDIT)]**. **[SELECT (CH EDIT)]** so that it blinks.

MEMO
At this time, the sound of input channel 1 will no longer be output directly from master out.

In Play condition, if you continue holding **[STATUS]** for a short time longer, you can check which source is assigned to each track.

Assigned sources 1–8 (upper line)
Assigned tracks 1–8 (lower line)

```
CONDITION MARKER#          TIME
PLY ***    Assign    ***   -dB
MEASURE  BEAT                0
   1   1                     4
SYNC MODE SCENE             12
INT ---                     24
REMAINING TIME              48
294.400
         12345678   AB  LR
         INPUT/TRACK  AUX MASTER
```

Recording Tracks (1–8)

Stereo In (first line)
Effect 1 (second line)
Effect 2 (third line)

```
CONDITION MARKER#          TIME
SYS MasterClk=DIGIN2   -dB
MEASURE  BEAT
```

7

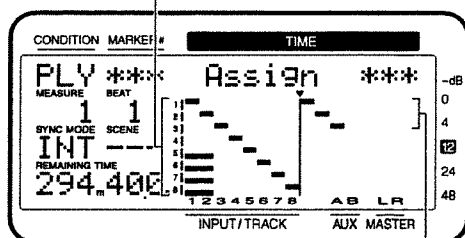Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)

8
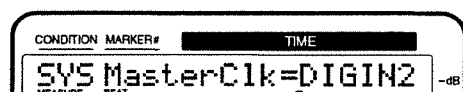
Raise and lower channel fader 1 to verify that the volume changes. The track channel fader is used for monitoring. It does not affect the recording level. Even if you hear no sound, you can still record. Adjust the volume to a suitable level for listening.

9

Press **[REC]**. The **[REC]** indicator will blink red.

10

Press **[PLAY]**. The **[PLAY]** indicator will light green, and recording will begin. Start playing your electric guitar.

11

When you finish playing, press **[STOP]**.

12

For each track whose **[STATUS]** is blinking red, press the **[STATUS]** button several times to make it light green.

MEMO
You can make indicator light green to hold down **[STOP]** and press **[STATUS]**.

Playing Back the Performance You Recorded

Now let's playback the performance that was recorded on track 1.

1 Hold down **[STOP]** and press the track 1 **[STATUS]** button. **[STATUS]** will light green.

2 Press **[ZERO]**. You will return to the beginning of the song.

3 Press **[PLAY]**. The song will be playback.

4 Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)

5 Use channel fader 1 and the master fader to adjust the volume to a comfortable level.

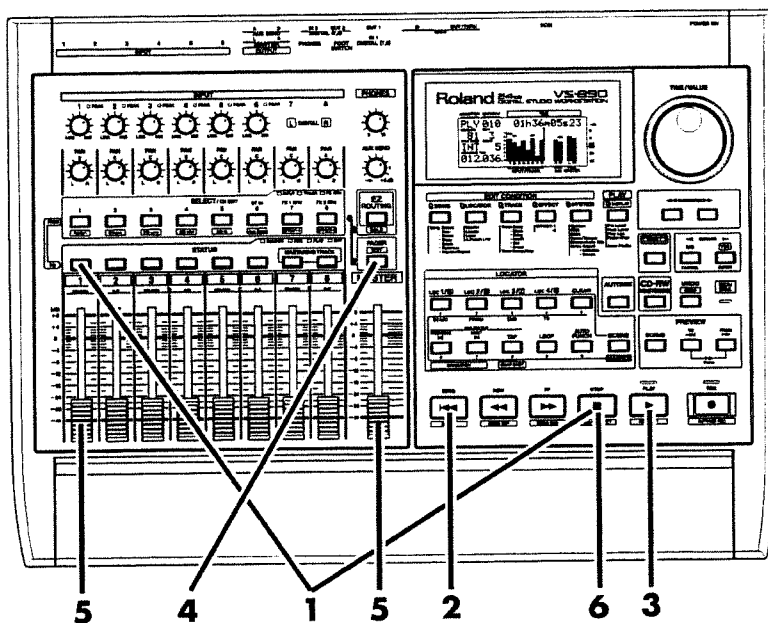**6** When playback ends, press **[STOP]**.

Canceling the Recording

Checking the Time Available for Recording (Remaining Time)

Each time a performance is recorded on a track, hard disk capacity will be used up, and the remaining time available for recording will decrease. You may continue recording as long as there is sufficient capacity on the hard disk. When you would like to know how much recording time is left, you can use the following procedure. It is a good idea to check the remaining recording time before you start recording.
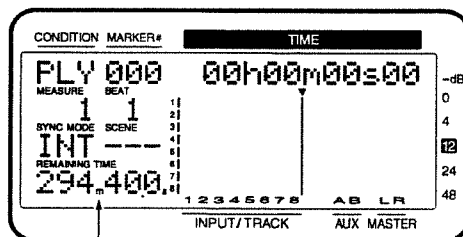
Remaining amount (in the example, 294minutes 40seconds)

Canceling a Recorded Result (Undo/Redo)

If the recording level was too low, if you made a mistake in your performance, or if for any other reason you wish to re-do the recording, you can use the following procedure to cancel the contents of the recording. This is called the **Undo function**. You can also cancel the previously-executed Undo to return to the original state, and this is called the **Redo function**.

The Undo Function and Undo Level

The Undo function cancels the operation that you have performed, and returns the data to its previous condition. With the **Undo Level**, you can specify the number of previous steps to be undone.
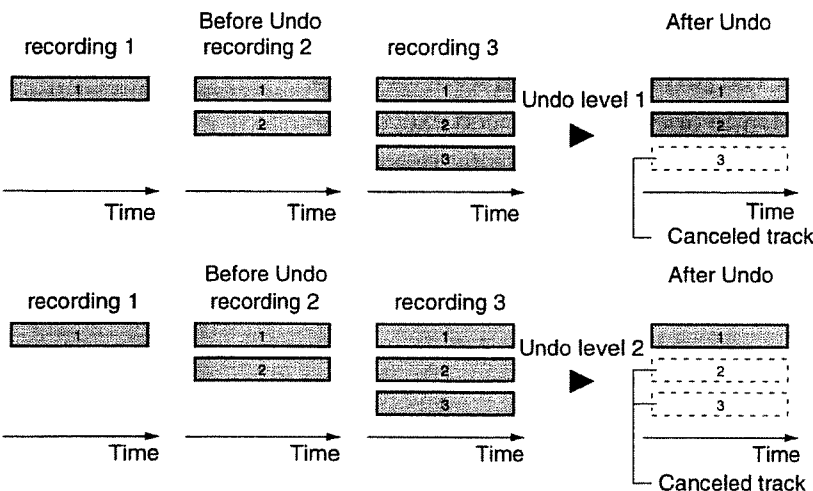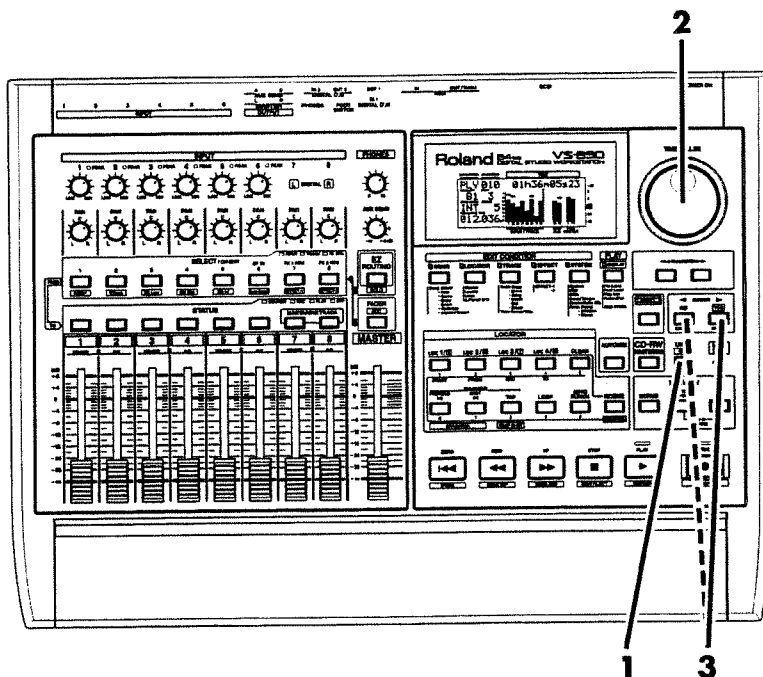
Undo

1 Press **[UNDO (REDO)]**.

2 The display will indicate "UNDO Level=." Use the **TIME/VALUE dial** to specify how many steps you wish to return.
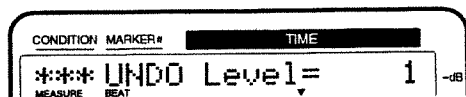
3 Press **[YES (ENTER)]**. The **[UNDO (REDO)]** indicator will light to show that the Undo operation has been executed successfully. If you decide not to execute Undo, press **[NO (CANCEL)]**.

Redo

If you wish to cancel the last-executed Undo (i.e., if you wish to return to the original state), use the following procedure.
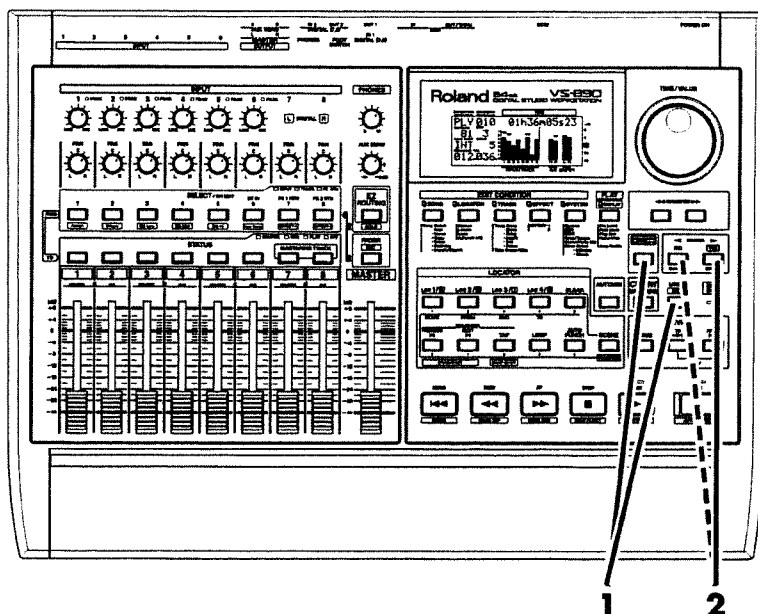
1

Make sure that **[UNDO (REDO)]** is lit. Then hold down **[SHIFT]** and press **[REDO (UNDO)]**.

2

The display will ask "REDO last UNDO ?" Press **[YES (ENTER)]**.

NOTE
If you save the song after executing Undo, it will no longer be possible to perform Redo (p. 35).

NOTE
Redo allows you to change your mind about your most recent Undo, allowing you to go back to having the change put into effect, thus "redoing" it. Note, for example, that if you've carried out Undo two times in a row, by using Redo, you're returned to the state in effect immediately before you ran Undo for the second time.

☞
For details refer to "Recording and Editing Operations Which Can Be Undone (Undo)" (Owner's Manual p. 75). "Canceling Only the Very Last-Performed Operation" (Owner's Manual p. 76)

Re-Recording a Specified Portion (Punch-In/Punch-Out)

When you listen to a performance that you recorded, you may notice that even though the overall performance is good, a mistake was made or the wrong lyrics were sung in just one location. In such cases you can use the following procedure to re-record just the portion in which the mistake occurred. This is called Punch-in/Punch-out.
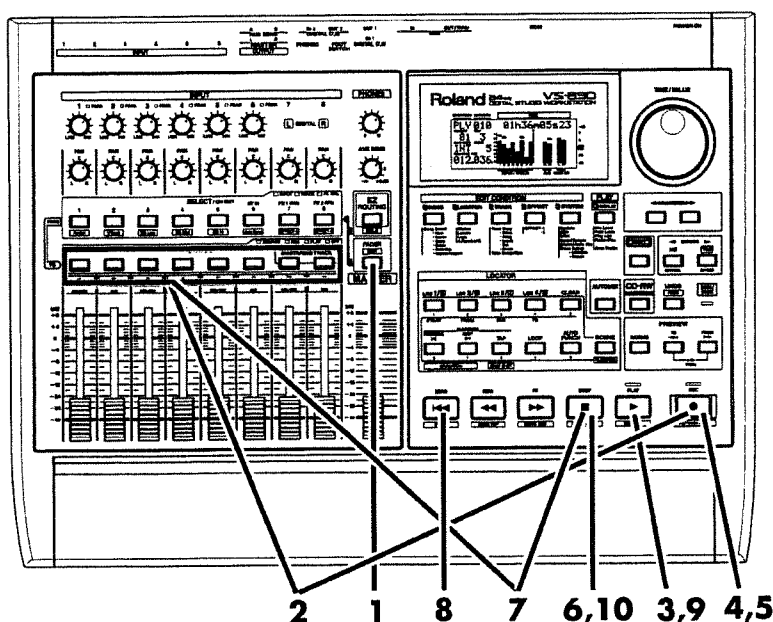

```
   2   1   8   7  6,10  3,9  4,5
```

NOTE

Although it will appear that the audio data is overwritten by this precess, the data that is no longer playback is not actually erased from the hard disk. This means that the available recording time will decrease when you punch in/punch out. If you wish to increase the available recording time, please read "If "Disk Full!" appears in the display (Song Optimize)" (p. 43).

1

Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)

2

Hold down **[REC]** and press the **[STATUS]** button of the track that you wish to re-record. **[STATUS]** will blink red.

3

Press **[PLAY]**. The song will be playback.

4

At the point where you wish to begin re-recording, press **[REC]**. **[REC]** will light red, indicating that recording is occurring. Begin playing or singing.

5

When you finish playing or singing, press **[REC]** once again. **[REC]** will go dark, indicating that you have returned to playback mode.

6 Press **[STOP]**. The song will stop.

7 Hold down **[STOP]** and press the **[STATUS]** button of the track that you have re-recorded. **[STATUS]** will light green.

8 To listen to your recording, press **[ZERO]**. You will return to the beginning of the song.

9 Press **[PLAY]**. The song will be playback. Use the channel faders and master fader to adjust the volume to a comfortable level.

10 When playback ends, press **[STOP]**.

Erasing Just a Portion of a Recording (Track Erase)

If instead of re-recording the portion where a mistake was made, you simply wish to erase the mistake, use the following procedure. The result will sound the same as recording silence over the unwanted section, without using additional disk space.
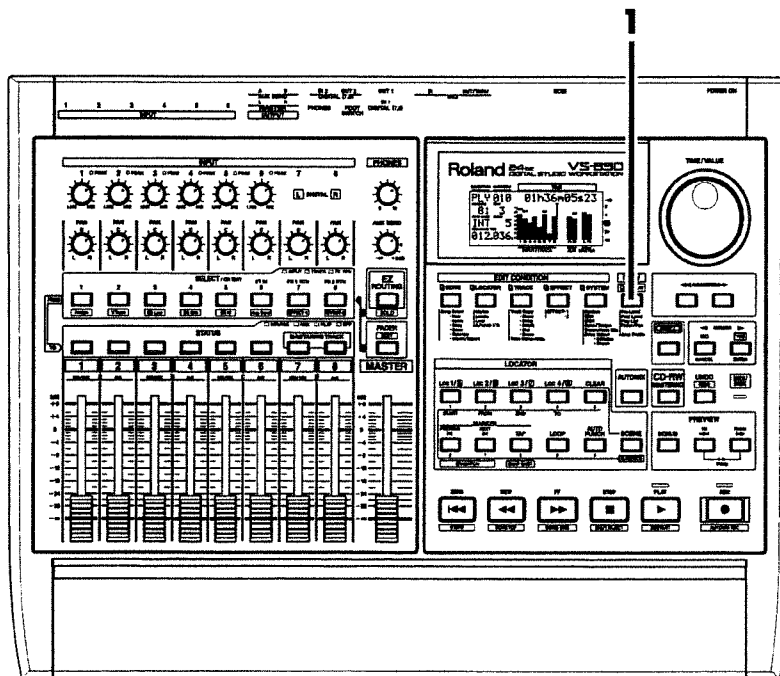
1 Press **[PLAY (DISPLAY)]**.

For details refer to "Recording Over a Portion of a Performance (Punch-In/Punch-Out)" (Owner's Manual p. 53). If you wish to have the Punch-In/Punch-Out function performed automatically, see "Specify Beforehand the Location for Re-Recording (Auto Punch-In)" (Owner's Manual p. 55). To record over the same section of a song a repeatedly, please refer to "Repeatedly Recording Over the Same Area (Loop Recording)" (Owner's Manual p. 56).

2   6,8 5,7,9

4   10 3

2
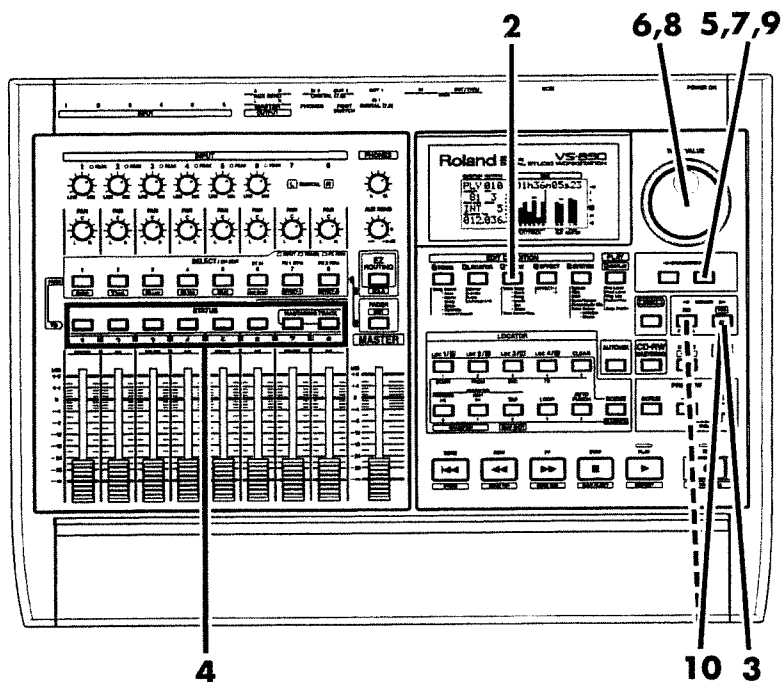
Press **[TRACK]** several times until "TRK Track Erase ?" appears in the display.

3

Press **[YES (ENTER)]**.

4

Press **[STATUS]** for the track that you wish to erase. **[STATUS]** will blink red.

5

Press **PARAMETER [►►]** until "TRK St=" appears in the display.

6

Rotate the **TIME/VALUE dial** to specify the starting time of the segment to be erased.

NOTE

Although it will appear that the audio data is overwritten by this precess, the data that is no longer playback is not actually erased from the hard disk. This means that the available recording time will decrease when you Track Erase. If you wish to increase the available recording time, please read "If "Disk Full!" appears in the display (Song Optimize)" (p. 43).

```
CONDITION  MARKER#                TIME
TRK St=     00h00m00s00        -dB
MEASURE  BEAT                            0
    1   1                                4
SYNC MODE  SCENE                         🔢
INT  ---                                 24
REMAINING TIME                           48
294m400.            12345678   AB  LR
                    INPUT/TRACK   AUX MASTER
```
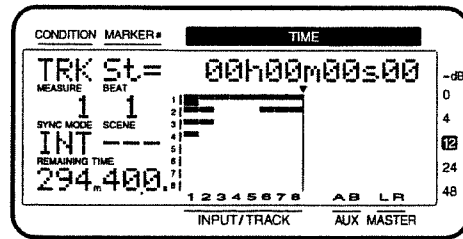
7 Press **PARAMETER [►►]** until "TRK End=" appears in the display.

8 Rotate the **TIME/VALUE dial** to specify the ending time of the segment to be erased.

```
CONDITION  MARKER#                TIME
TRK End=    00h00m00s00        -dB
MEASURE  BEAT                            0
    1   1                                4
SYNC MODE  SCENE                         🔢
INT  ---                                 24
REMAINING TIME                           48
294m400.            12345678   AB  LR
                    INPUT/TRACK   AUX MASTER
```
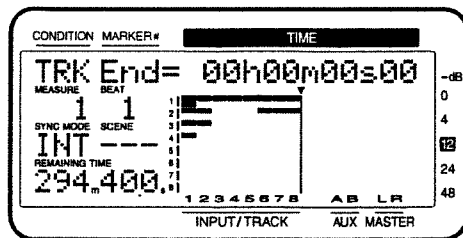
9 Press **PARAMETER [►►]** until "TRK Track Erase OK ?" appears in the display.

10 Press **[YES (ENTER)]**. This executes Track Erase. If you wish to cancel, press **[NO (CANCEL)]**.

11 When the erase is completed correctly, "Complete" appears in the display, and return to Play condition.

NOTE

For details refer to "Erase Performance Data (Track Erase)" (Owner's Manual p. 86).

If "Disk Full!" appears in the display

Deleting Only Unneeded Performance Data (Song Optimize)

When you perform punch-in recording or use operations such as Track Erase, the data that is no longer playback will remain on the disk drive without being actually deleted. The Song Optimize operation deletes this unneeded data from the hard disk, in order to increase the available space (recordable time) on the hard disk. This operation cannot be undone by the Undo function. Furthermore, recorded data that was deleted by the Song Optimize operation cannot be recovered.

NOTE
Depending on the structure of the performance data, the vacant area (the remaining time for recording) may not increase as you expect.
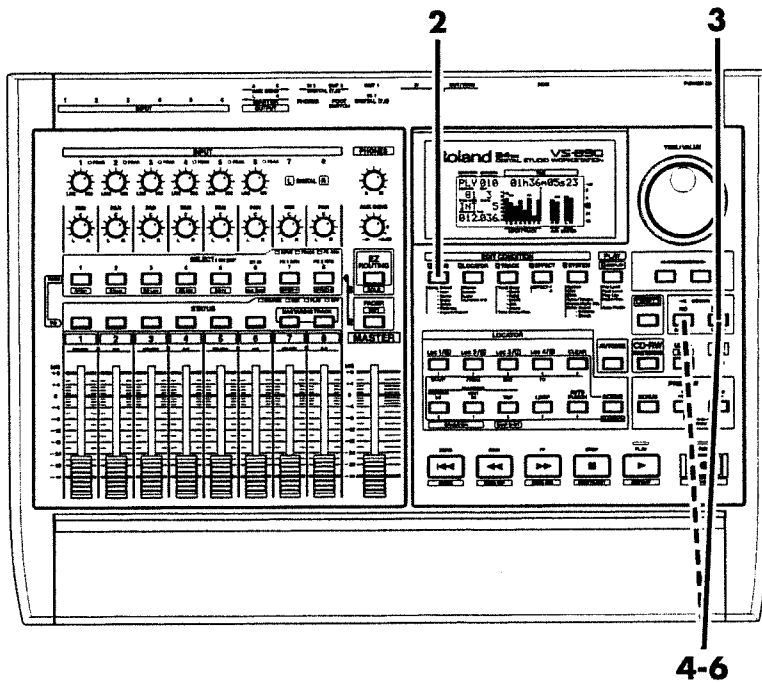
1 Make the song whose optimize the current song.

2 Press **[SONG]** several times until "SNG Song Optimize ?" appears in the display.

3 Press **[YES (ENTER)]**. "SNG Song Optimize OK ?" appears in the display.

4

Press **[YES (ENTER)]**. If you wish to cancel Song Optimize, the press **[NO (CANCEL)]**.

5

"Optimize Sure ?" appears in the display. Press **[YES (ENTER)]** again. If you wish to cancel Song Optimize, the press **[NO (CANCEL)]**.

6

A confirmation message appears in the display. Press **[YES (ENTER)]** again.

7

When the Optimize operation is completed, you will return to Play condition.

NOTE

Be aware that, depending on conditions, it may take some time for the Optimize operation to be completed. This is not a malfunction. Do not turn the power off until the Optimize operation is completed.

NOTE

For details refer to "Deleting Only Unneeded Performance Data (Song Optimize)" (Owner's Manual p. 122).

Deleting Unneeded Songs (Song Erase)

After creating audio CD's or backing up songs to a CD-RW disc etc., you may wish to delete unneeded songs from the hard disk. **This operation cannot be undone by the Undo function.**
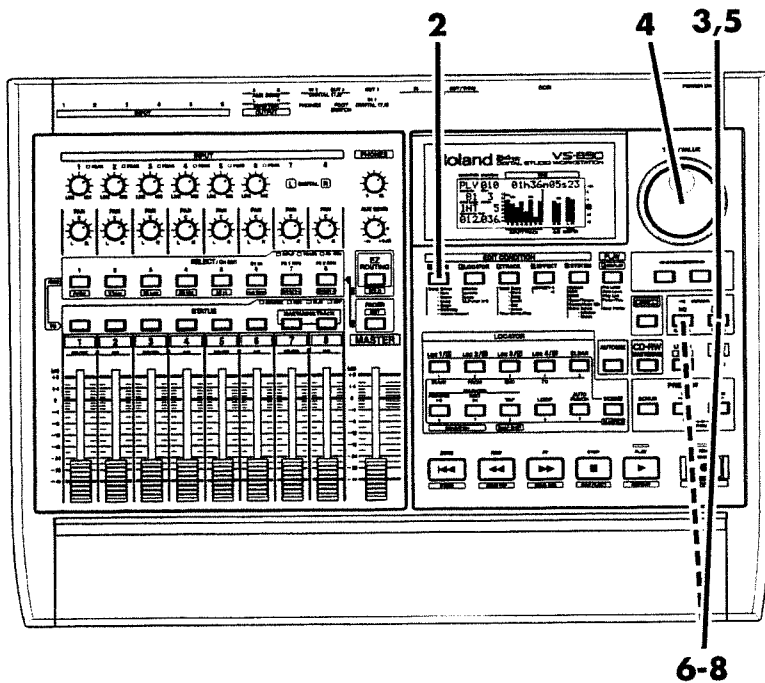
1 Select the drive contains the song you want to erase as the current drive. (p. 139)

2 Press **[SONG]** several times until "SNG Song Erase ?" appears in the display.

3 Press **[YES (ENTER)]**. The names of the songs stored on the current drive will appear. An asterisk "*" will appear at the beginning of the current song.

4 Rotate the **TIME/VALUE dial** to select the song that you wish to erase.

CONDITION MARKER#   TIME

SNG Ers*InitSong 001

MEASURE BEAT
1 1

SYNC MODE SCENE
INT ---

REMAINING TIME
294m400s

1 2 3 4 5 6 7 8   A B   L R

INPUT/TRACK   AUX MASTER

-dB
0
4
12
24
48
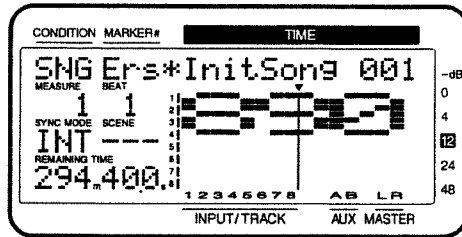
5

Press **[YES (ENTER)]**. "Erase Song Sure?" appears in the display.

6

Press **[YES (ENTER)]** again. "EraseReallySure?" appears in the display. If you wish to cancel Song Erase, the press **[NO (CANCEL)]**.

7

Press **[YES (ENTER)]** again. "STORE Current?" appears in the display. If you wish to save the current song, press **[YES (ENTER)]**; if not, then press **[NO (CANCEL)]**.

8

If you try to delete a protected song, such as a protected performance, the messages "-Song Protected-" and "Continue?" are displayed alternately. If you wish to erase the protected song, press **[YES (ENTER)]**; if not, then press **[NO (CANCEL)]**.

9

When the song has been erased, return to Play condition.

MEMO

When a non-VS-890 type of song (such as one in the VS-880 or VS-880EX format) is selected as the current song, "STORE Current" will not be displayed.

NOTE

If important data is erased by mistake, there is no way to recover it. Roland can take no responsibility of any kind for the recovery of any lost data or any damages incurred thereby.

MEMO

If the current song has been erased, the lowest-numbered son in the current drive will be selected as the current song.

Recording On V-Track

The VS-890 features 8 tracks, each of which contains 8 auxiliary tracks. These subsidiary tracks are referred to as V-tracks. Each song can have two sets (A and B) of these 64 V-tracks (8 tracks x 8 V-tracks), and each such set is referred to as a V-track bank. By using all of these tracks to their full potential, you can create recording of up to 128 (64(V-track) x 2(V-track bank)) tracks. For actual recording/playback, you specify the bank that you wish to use, and then select one of the V-tracks.

The following example shows how to record a performance of V-track 2 of track 1.

Switching V-Tracks
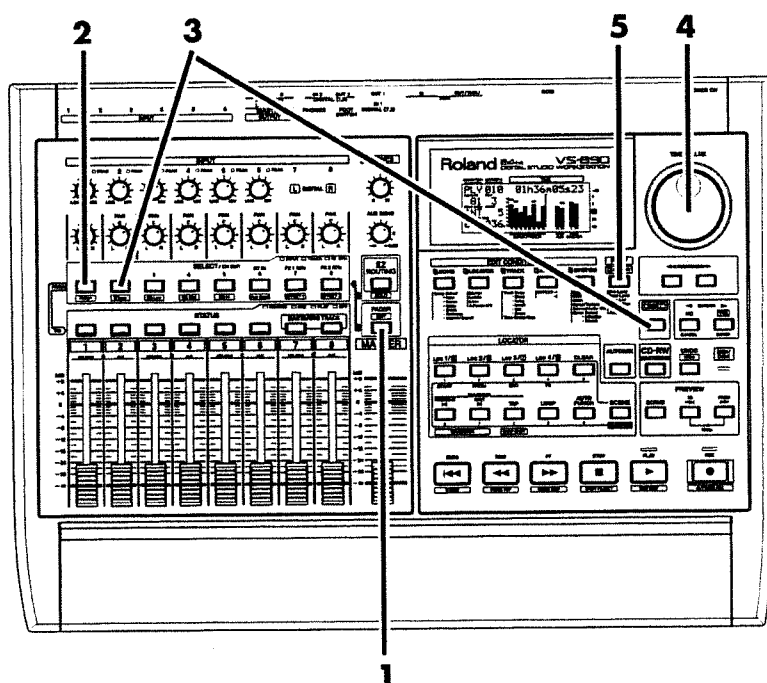
1   Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)

2   With song playback stopped, hold down **[SHIFT]** and press channel 1 **[Assign (CH EDIT)]**. The upper left of the display will indicate "TR1," allowing you to make setting for track 1.

3

Hold down **[SHIFT]** and press channel 2 **[V.Track (CH EDIT)]**. The upper line of the display will indicate "V.Track=," allowing you to select the V-track.

V-Track Bank

Tracks on which sound is recorded   V-Track

At this time, the bar display will indicate the V-tracks on which sound has been recorded, and the V-track which is selected for each track.

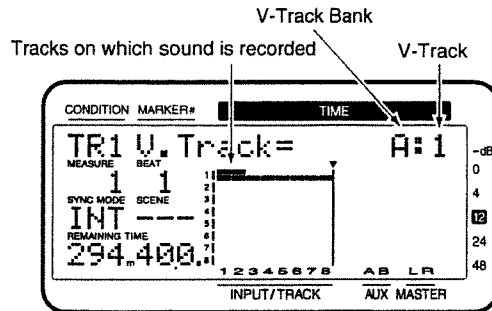1-8 in the horizontal axis are the track numbers, and 1-8 in the vertical axis are the V-track numbers.

A ■ displayed on the upper line of the V-track number indicates that sound has been recorded in that V-track. In the above display, sound has been recorded in V-Tracks 1 of Tracks 1 and 2.

A ■ displayed on the lower line of the V-track number indicates that V-track is selected. In the above display, V-track 1 is selected for all tracks 1-8.

4

Use the **TIME/VALUE dial** to select the V-track for recording or playback. Here, select "2."
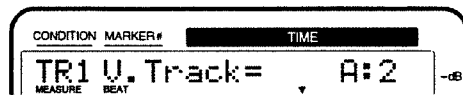
5

Press **[PLAY (DISPLAY)]**. Return to Play condition.

6

Now you have set up V-Track 2 of Track 1 for recording. Record and check the content by following the procedure described in **"Recording On a Track** (p. 31)".

For more detailed information, please refer to "Auxiliary Tracks for Each Track" (Owner's Manual p. 31).

Comparing the Recorded Content of Two V-tracks

If you have been following the procedures in the previous examples, V-tracks 1 and 2 of track 1 contain recorded performances. Here's how you can compare the performances of the two V-tracks.
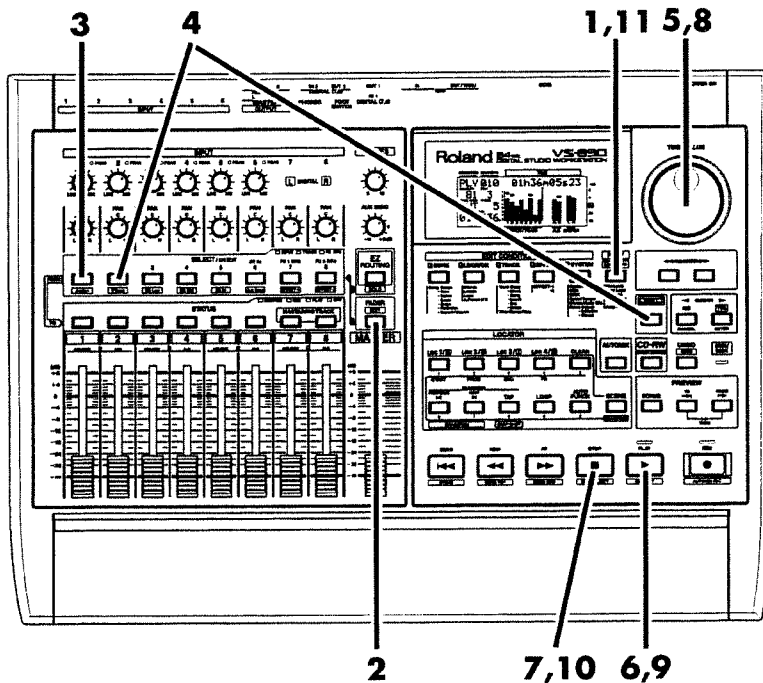
1
Press **[PLAY (DISPLAY)]**.

2
Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)

3
With song playback stopped, press channel 1 **[CH EDIT]**. The upper left of the display will indicate "TR1," allowing you to make setting for track 1.

4
Hold down **[SHIFT]** and press channel 2 **[V.Track (CH EDIT)]**. The upper line of the display will indicate "V.Track=," allowing you to select the V-track.

5
Use the **TIME/VALUE dial** to select the V-track for recording or playback. Here, select "2."

```
CONDITION MARKER#            TIME
 TR1 V.Track=      A:2  -dB
 MEASURE  BEAT          ▼
```
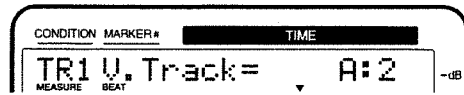
6   Press **[PLAY]**. The song will be playback.

7   Press **[STOP]**.

8   Use the **TIME/VALUE dial** to switch V-tracks.

9   Press **[PLAY]**. Notice that a different performance is playback.

10   Press **[STOP]**.

11   Press **[PLAY (DISPLAY)]**. Return to Play condition.

NOTE
You cannot switch V-tracks while song is playing.

Switching V-Track Bank
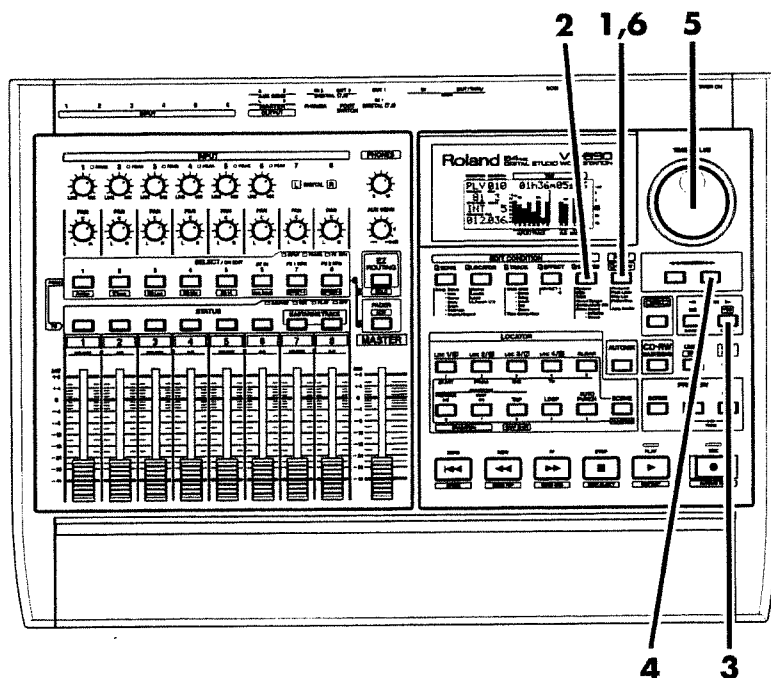
1 Press **[PLAY (DISPLAY)]**.

2 Press **[SYSTEM]** several times until "SYS System PRM ?" appears in the display.

3 Press **[YES (ENTER)]**.

4 Press **PARAMETER [►►]** several times until "V.Track Bank =" appears in the display.

5 Rotate the **TIME/VALUE dial** to select "A" or "B."

6 Press **[PLAY (DISPLAY)]**. Return to Play condition.

MEMO
V-tracks within the different V-track bank cannot be recorded or playback simultaneously.

Recording On Other Tracks (Overdubbing)

The VS-890 allows you to record new performances on other tracks while you listen to the playback of previously recorded tracks. This process is called Overdubbing. In the following example we will explain how to use a mic connected to the INPUT 2 jack to record a vocal on track 3 while you listen to the electric guitar performance that you recorded earlier on track 1. As described in "**Adjusting the Input Sensitivity** (p. 30)", adjust the input sensitivity of the mic connected to the INPUT 2 jack before you begin.
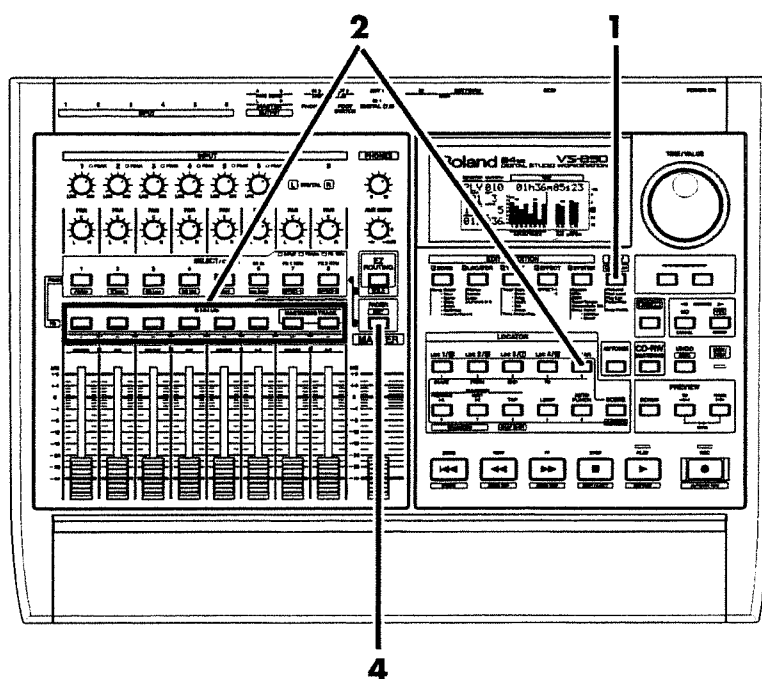
1 Press **[PLAY (DISPLAY)]**.

2 Hold down **[STATUS]** (of any track) and press **[CLEAR]**. The assignments of input sources to tracks will be cleared.

3 Make fine adjustments to the recording level as described in "**Adjusting the Input Sensitivity** (p. 30)".

4 Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)
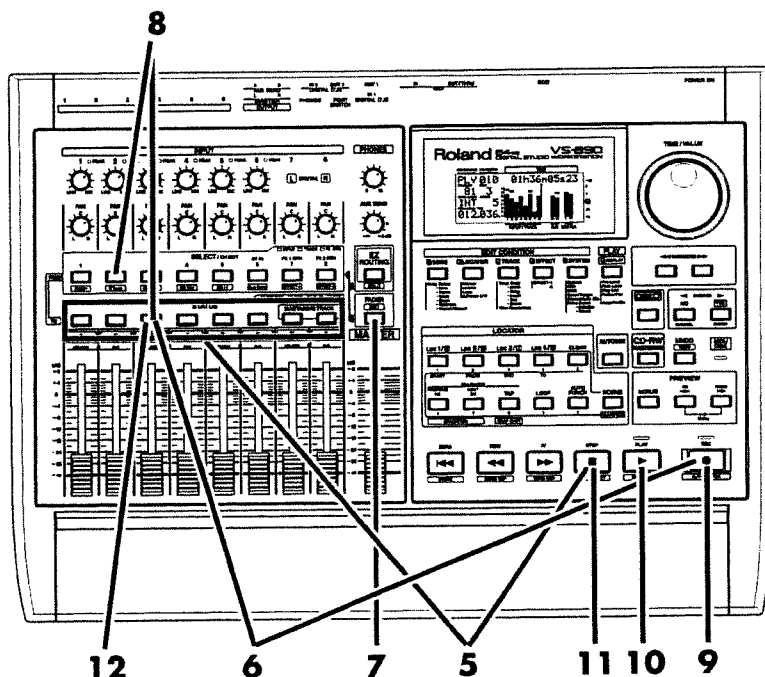
5

Select the playback track(s). Hold down **[STOP]**, and press the **[STATUS]** button of the track(s) that you wish to hear. For this example, hold down **[STOP]** and press the track 1 **[STATUS]** button. **[STATUS]** will light green.

6

Select the track(s) for recording. Hold down **[REC]** and press the **[STATUS]** button of the track(s) that you wish to record. For this example, hold down **[REC]** and press the track 3 **[STATUS]** button. **[STATUS]** will blink red.

7

Press **[FADER (EDIT)]** several times to let the FADER indicator light orange. (Input Mixer)

8

Select the source that will be recorded on the track. Hold down the **[STATUS]** button of the track that you wish to record, and press the **[SELECT]** button of the input channel that you wish to assign. For this example, hold down the track 3 **[STATUS]** button, and press the input channel 2 **[SELECT]** button. **[SELECT]** will blink.

MEMO

At this time, the sound of input channel 2 will no longer be output directly from master out.
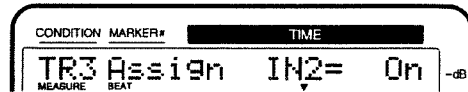
```
CONDITION MARKER#          TIME
TR3 Assign   IN2=   On  -dB
MEASURE  BEAT
```

9
Press **[REC]**. The **[REC]** indicator will blink red.

10
Press **[PLAY]**. The **[PLAY]** indicator will light green, and recording will begin.

11
When you finish recording, press **[STOP]**.

12
For each track whose **[STATUS]** is blinking red, press the **[STATUS]** button several times to make it light green.

MEMO
You can make indicator light green to hold down **[STOP]** and press **[STATUS]**.

Recording Digital Signals

With the VS-890, you can record the digital signals output by CD players, DAT and MD recorders, Roland VS-1680, and other digital audio devices as is.

Items Necessary for Digital Recording

• VS-890

• CD player, DAT and MD recorder, or other digital audio device

• Digital connector cable (coaxial or optical)

Make the Digital Connections

Connect the digital output connector of your audio device with the VS-890's DIGITAL IN connector. DIGITAL IN 1 is a coaxial connector, DIGITAL IN 2 an optical connector. Use the appropriate connector for your audio device.

Match the Sample Rates

It can record the digital signals when the sample rate of the song is set to match the sample rate of the input source. The song created when a disk drive is initialized will have a sample rate of 44.1kHz.

If the sample rate of the input source is other than 44.1kHz, create a new song with that sample rate (p. 20). **Then, if you wish to create original audio kc/s, select that sample rate for 44.1kHz (p. 20).**

In Order to Make a Digital Connection with Your CD Player

At the time of purchase, the VS-890 is not able to record the output of CD players via its DIGITAL IN connectors. Perform the following procedure when you wish to make a digital connection with your CD player.

The VS-890's digital interface conforms to S/P DIF. When recording digital signals, be sure to digital audio devices conforming to the same standards.

Coaxial In and Optical In cannot be used simultaneously. Select one of the connectors for use. (p. 58)

S/P DIF (Owner's Manual "Glossary")
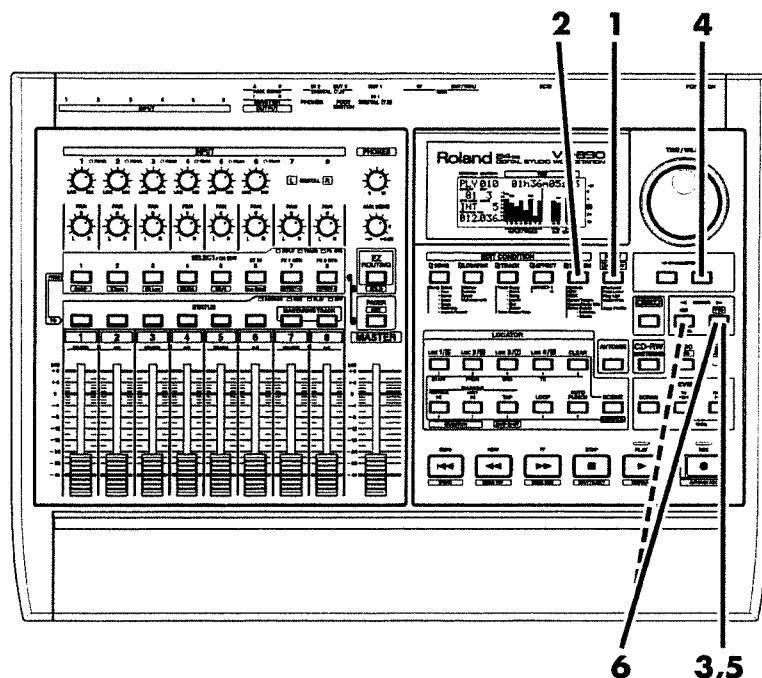
1   Press **[PLAY (DISPLAY)]**.

2   Press **[SYSTEM]** several times until "SYS System PRM ?" appears in the display.

3   Press **[YES (ENTER)]**.

4   Press **PARAMETER [►►]** several times until "CD DigiREC → On ?" appears in the display.

5   Press **[YES (ENTER)]**. "Obey Copyrights ?" appears in the display.

6   Carefully read the conditions for permission that are listed on the back cover of this manual, and if you agree to the conditions, press **[YES (ENTER)]**. After the display indicates " — Complete —," you will return to Play condition. Now you will be able to make digital connections with your CD player. If you do not agree to the conditions, press **[NO (CANCEL)]**, and you will immediately return to Play condition.

To Prevent Digital Connections with CD Player

Use the following procedure when you want to prevent digital connections with CD player.

1

Press **[PLAY (DISPLAY)]**.

2

Press **[SYSTEM]** several times until "SYS System PRM ?" appears in the display.

3

Press **[YES (ENTER)]**.

4

Press **PARAMETER [►►]** several times until "CD DigiREC → Off ?" appears in the display.

5

Press **[YES (ENTER)]**. After the display indicates "Complete", you will return to Play condition. Subsequently it will no longer be possible to make digital connections with your CD player.

Select the Master Clock

Synchronize the VS-890's reference clock (the master clock) with the digital signal from the digital audio device.
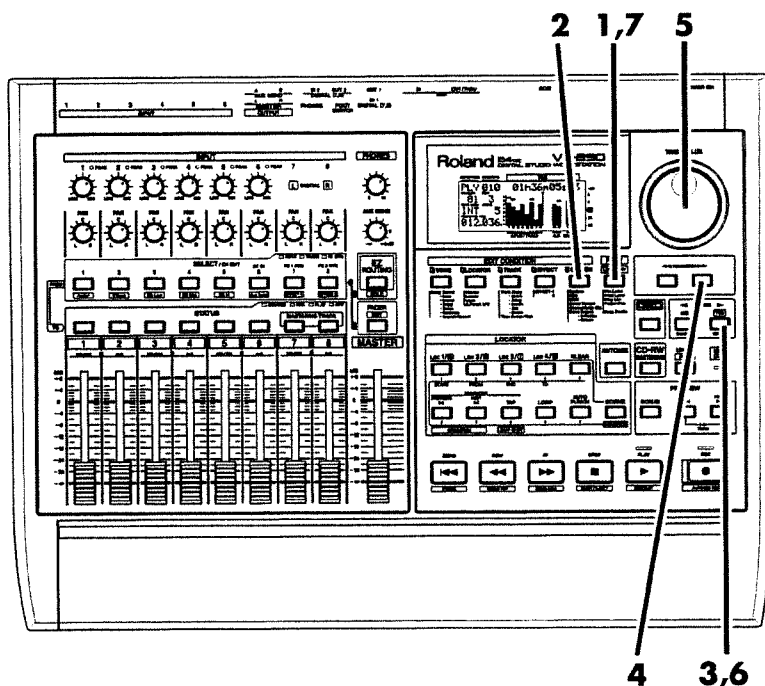
1 Press **[PLAY (DISPLAY)]**.

2 Press **[SYSTEM]** several times until "SYS System PRM ?" appears in the display.

3 Press **[YES (ENTER)]**.

4 Press **PARAMETER [►►]** several times until "SYS MasterClk =" appears in the display.

5 Rotate the **TIME/VALUE dial** to switch the master clock.

6 Press **[YES (ENTER)]**.

```
┌─────────────────────────────────────────┐
│ CONDITION  MARKER#  ████████ TIME ██████ │
│ ┌───────────────────────────────────┐    │
│ │ SYS MasterClk=DIGIN2 │-dB          │    │
│ └───────────────────────────────────┘    │
│   MEASURE   BEAT         ▼                │
└─────────────────────────────────────────┘
```
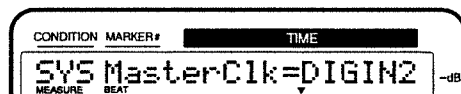
MasterClk (Master Clock)

This sets the VS-890's reference clock. In this case, select "DIGIN1" or "DIGIN2."

INT: Based on the VS-890's reference clock.

DIGIN1: Based on the digital signal received from the COAXIAL IN
           connector.

DIGIN2: Based on the digital signal received from the OPTICAL IN
           connector.

7 Press **[PLAY (DISPLAY)]**. Return to Play condition.

Select an Input Source

Here we will explain how to select an input source, using the example of recording a digital signal on tracks 1 and 2. Here we will explain how to select input sources, using the example of recording a digital signal (stereo) to tracks 1 and 2.
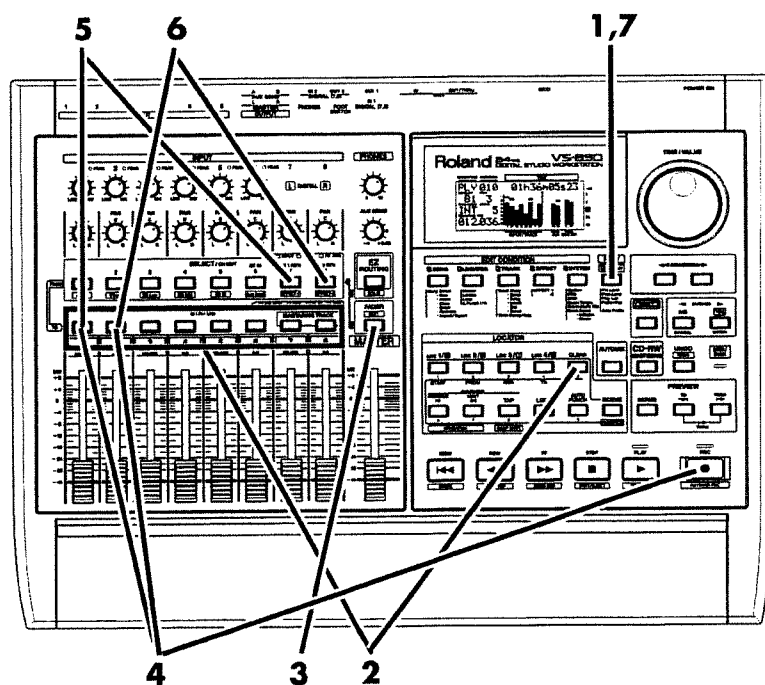
1   Press [PLAY (DISPLAY)].

2   Hold down STATUS ([1]–[8]:any track is OK) and press [CLEAR]. The assignments of input sources to tracks will be cleared.

3   Press [FADER (EDIT)] several times to let the FADER indicator light orange. (Input Mixer)

4   Select the recording track. Hold down [REC] and press STATUS ([1]–[8]) of the desired track. For this example, hold down [REC] and press STATUS [1], [2]. The STATUS indicator will blink red. (ready to record)

5

Assign the digital signal to an input channel. If you wish to
assign the digital signal (left channel) to input channel 1, hold
down **STATUS [1]** and press **[SELECT (CH EDIT) 7]**.

6

If you wish to assign the digital signal (right channel) to input
channel 2, hold down **STATUS [2]** and press
[SELECT (CH EDIT) 8].

7

Now the digital signal can be recorded. Press
[PLAY (DISPLAY)]. Return to Play condition.

8

As described in "**Recording On a Track** (p. 31)", record and
check the contents.

Playing Back Two or More Tracks

Adjust the Volume Balance of the Tracks
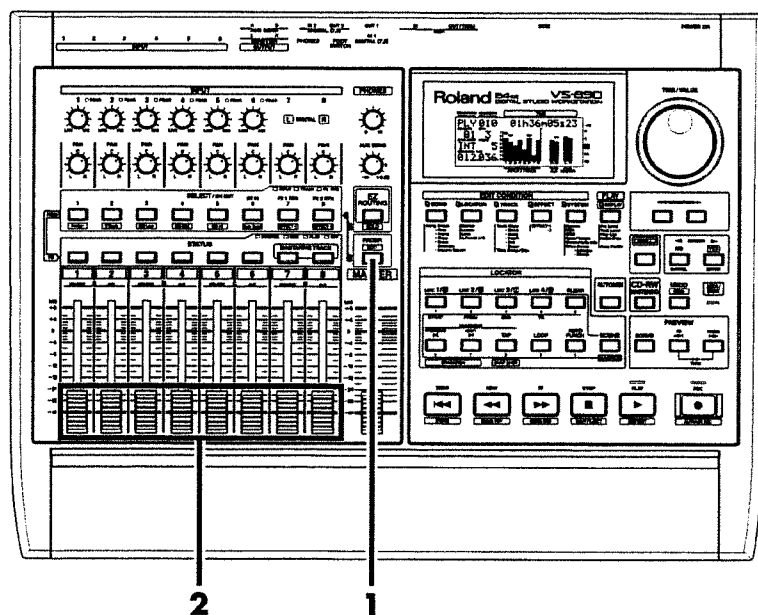
2   **1**

1

Press **[FADER (EDIT)]** several times to let the FADER
indicator light green. (Track Mixer)

2

Use the channel fader of each track to adjust the volume
balance of the tracks.

Adjusting the Stereo Position of Each Track

If you wish to adjust the stereo position (pan) of each track, use the
following procedure.
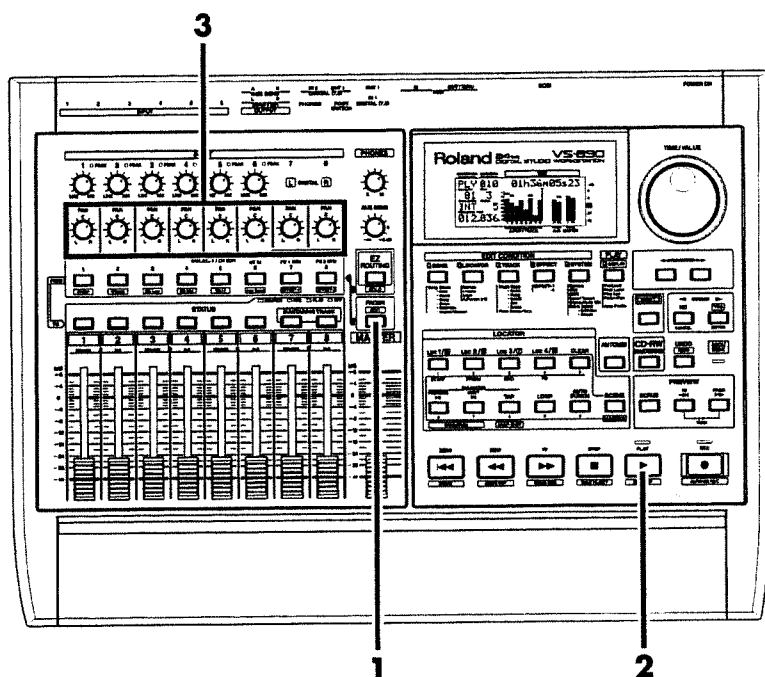
1 Press **[FADER (EDIT)]** several times to let the FADER
indicator light green. (Track Mixer)

2 Press **[PLAY]**. The song will be playback.

3 Adjust the pan, with the PAN knob of the channel input
assigned as the source.

Adjusting the Tone of Each Track

A selectable 2-band / 3-band parametric equalizer is provided for each channel. Here's how to use the equalizer to adjust the tone of each track.

Adjusting the Equalizer

NOTE

If the **Record Mode** (recording mode)(p. 22) has been set to "VSR," it is not possible to use the equalizer (it will not be displayed).
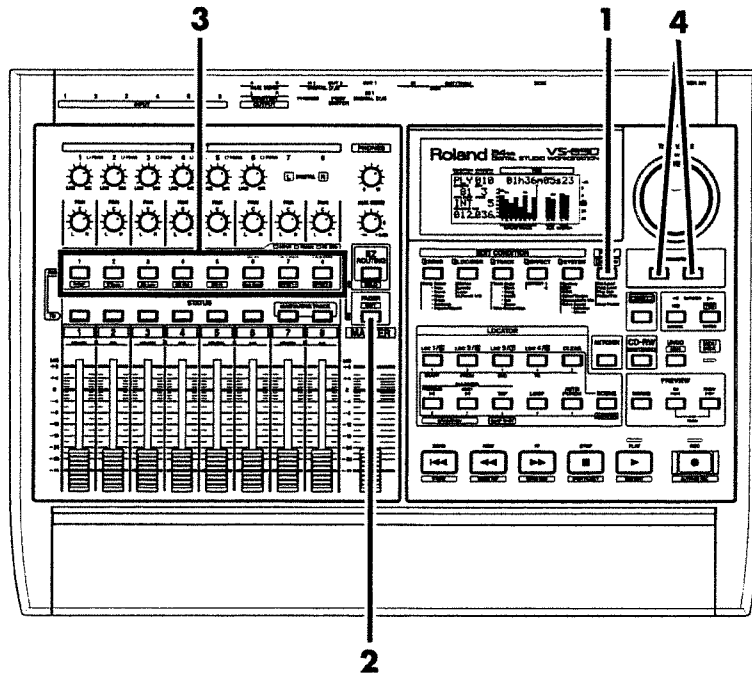
1 Press **[PLAY (DISPLAY)]**.

2 If you wish to adjust the equalizer for the input source, press **[FADER (EDIT)]** several times to let the FADER indicator light orange (Input Mixer). If you wish to adjust the equalizer for an already-recorded track, press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)

3 Press **[CH EDIT (SELECT [1]–[8])]** for the channel or track whose equalizer setting you wish to adjust.

4 Press **PARAMETER [◄◄][►►]**. "EQ Switch=" appears in the display.

8   5,6   6

6

5
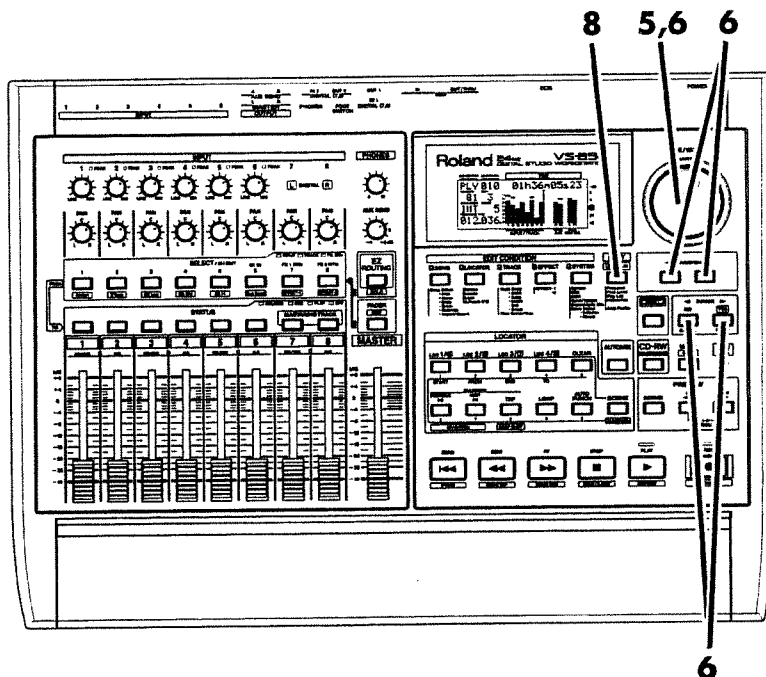
Rotate the **TIME/VALUE dial** to select equalizer "On."

EQ Switch (Equalizer Switch)

If you wish to use the equalizer, set this "On." If not, set this "Off." When equalizer settings are being made, the equalization curve will be shown graphically in the bar display. If this is "Off" the equalizer-related parameters will not be available. For this example, select "On" so that the equalizer will be applied.

6

Use **PARAMETER [◄◄], [►►], [◄], [►]** and **TIME/VALUE dial** to make the setting.

EQL (Equalizer Low)

This adjusts the gain (-12 to 12 dB) and the center frequency (40 Hz to 1.5 kHz) of the low-range (shelving) equalizer.
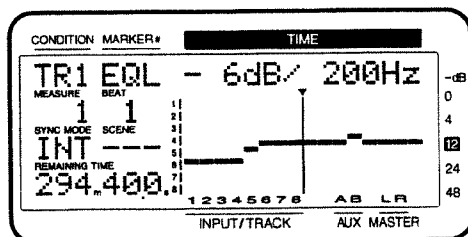
NOTE

If you adjust the equalizer while sound is playing, you may notice "blips" in the sound. This is not a malfunction. If you find it annoying, adjust the equalizer when the sound is not playing.

MEMO

The screens will change when you press PARMETER [◄◄], [►►]. Press [◄], [►] to access the parameter (gain or frequency) that you wish to adjust.

EQM (Equalizer Mid Gain)

This adjusts the gain (-12 to 12 dB) of the mid-range (peaking) equalizer.

MEMO

When the 2-band equalizer is selected, it is not possible to adjust Equalizer Middle (it will not be displayed).

```
 _____
| CONDITION  MARKER#  ▓▓▓▓▓▓  TIME       |
|                                        |
|  TR1 EQM            3dB    |-dB         |
|  MEASURE   BEAT                | 0      |
|     1    1      :1             |        |
|  SYNC MODE  SCENE  :1          | 4      |
|  INT ---         :1           |12      |
|  REMAINING TIME   :1          |24      |
|  294 400 :1                   |48      |
|       1 2 3 4 5 6 7 8   AB  LR         |
|       INPUT/TRACK      AUX  MASTER     |
|_____|
```

EQM (Equalizer Mid)

This adjusts the center frequency (200 Hz to 8 kHz) and Q (definition: 0.5 to 16) of the mid-range (peaking) equalizer.

```
 _____
| CONDITION  MARKER#  ▓▓▓▓▓▓  TIME       |
|                                        |
|  TR1 EQM         5kHz/Q=0.5 |-dB        |
|  MEASURE   BEAT                | 0      |
|     1    1      :1             |        |
|  SYNC MODE  SCENE  :1          | 4      |
|  INT ---         :1           |12      |
|  REMAINING TIME   :1          |24      |
|  294 400 :1                   |48      |
|       1 2 3 4 5 6 7 8   AB  LR         |
|       INPUT/TRACK      AUX  MASTER     |
|_____|
```

EQH (Equalizer High)

This adjusts the gain (-12 to 12 dB) and the center frequency (500 Hz to 18 kHz) of the high-range (shelving) equalizer.

```
 _____
| CONDITION  MARKER#  ▓▓▓▓▓▓  TIME       |
|                                        |
|  TR1 EQH       0dB/     4kHz |-dB       |
|  MEASURE   BEAT                | 0      |
|     1    1      :1             |        |
|  SYNC MODE  SCENE  :1          | 4      |
|  INT ---         :1           |12      |
|  REMAINING TIME   :1          |24      |
|  294 400 :1                   |48      |
|       1 2 3 4 5 6 7 8   AB  LR         |
|       INPUT/TRACK      AUX  MASTER     |
|_____|
```

7

Repeat Steps 2–6 if you wish to make adjustments to other equalizers.

8

When you are finished making the adjustments, press **[PLAY (DISPLAY)]**. Return to Play condition. If necessary, save the song (p. 65).

MEMO

For details refer to "Adjusting Tone (Equalizer)" (Owner's Manual p. 69).

Changing the Type of Equalizer

1
Hold down **[SHIFT]** and press **[EDIT (FADER)]** for the
channel or track whose equalizer setting you wish to adjust.

2
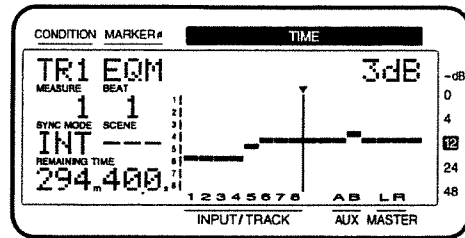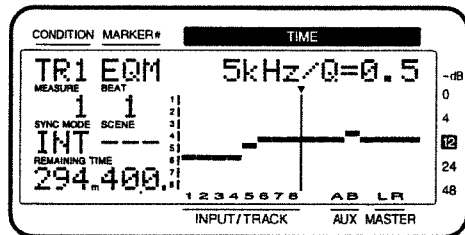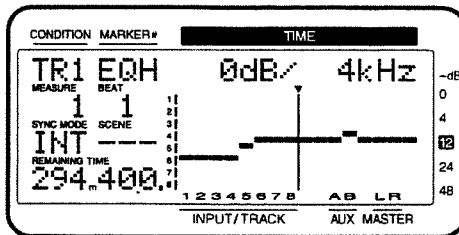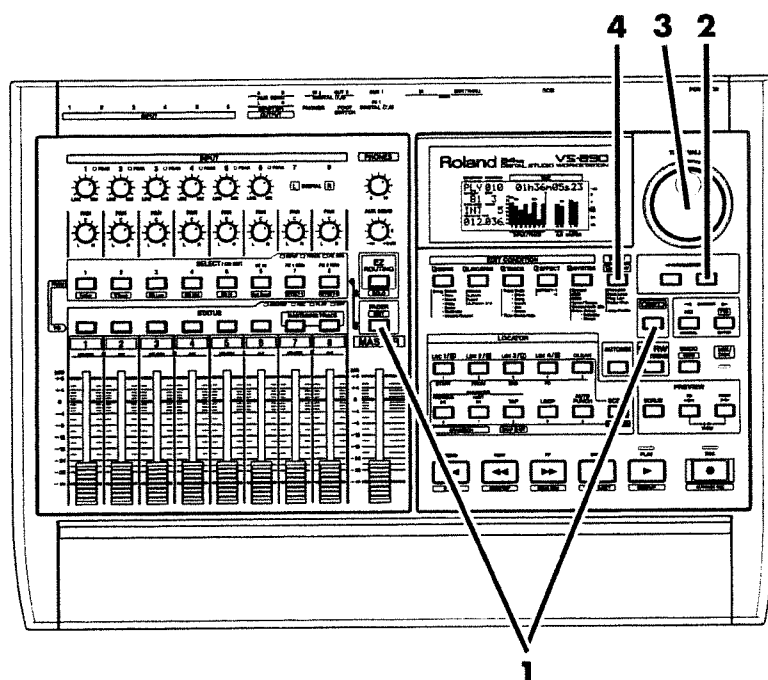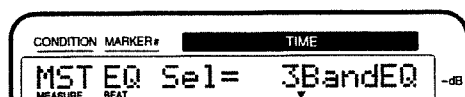Press **PARAMETER [◀◀][▶▶]** several times until
"MST EQ Sel=" appears in the display.

3
Rotate the **TIME/VALUE dial** to select equalizer.

EQ Sel (Equalizer Select)

Select the type of equalizer that you wish to use.

2BandEQ:2-band equalizer.

3BandEQ:3-band equalizer.

4
Press **[PLAY (DISPLAY)]**. Return to Play condition.

NOTE
The 3-band (low, mid,
high) equalizer can be used
on channel faders in only
one mixer mode - either the
Track mixer or Input mixer
- at a time. You cannot use
the equalizer in both
mixers simultaneously on
the same channel. For
example, if you are using
the 3-band equalizer on
Track 1, then you cannot
use it on Input 1.

NOTE
You cannot change the type
of equalizer of each channel
separately.

Saving Your Performance (Song Store)

The performance that you recorded will be lost if you simply turn off the power. It will also be lost if the power should be turned off by accident or power failure. Data that was lost in this way cannot be recovered. To avoid such accidents, use the following procedure to save your song to disk. When handling important song data or when you have been using the VS-890 for an extended period, we recommend that you save your data frequently.

1
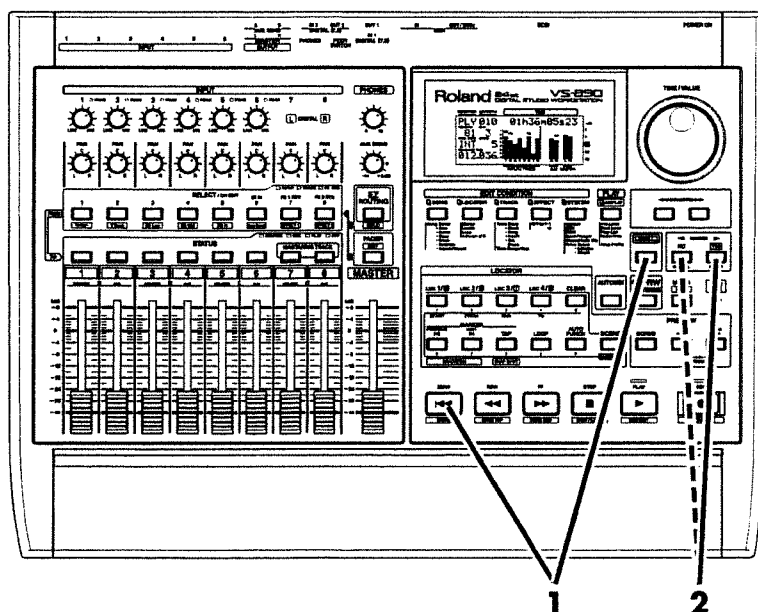
Hold down **[SHIFT]** and press **[STORE (ZERO)]**.

2

"STORE OK ?" will be displayed. If you are satisfied with the recording, press **[YES (ENTER)]**. If you decide not to store the song, press **[NO (CANCEL)]**.

NOTE
The contents of the protected songs cannot be changed or overwritten (Song Protect; p. 66). You cannot save operation with the protected songs. This means if you press **[YES (ENTER)]** at Step 2 when a protected song is selected, the message "SONG Protected" will appear, and the procedure cannot be continued.

NOTE
When a song is saved, it will no longer be possible to use the Redo operation. (p. 37)

NOTE
A song that was created on a device other than the VS-890 (such as the VS-880 or VS-880EX) cannot be resaved on the VS-890 (Owner's Manual "compatibility"). For this reason if you press **[YES (ENTER)]** in step 2 when a non-VS-890 song is selected, a warning message will appear, and you will not be able to continue the procedure.

Protecting Songs (Song Protect)

The possibility that a performance saved to the disk may still be mistakenly overwritten (recorded over), or that the song itself may be accidentally deleted has been considered. You can protect songs from being rewritten in situations such as these. The function is called **Song Protect**.


About Effective Use

Song Protect performs the same function as the protect tab or switch on floppy disks and magnet-optical disks. Thus, even if Song Protect is turned on, you can still store locate points and mark points, and carry out operations such as changing Scenes.

However, when you try to save the work you have done, "Song Protected" appears in the display, and you are prevented from continuing any further with the save. However, when you remove Song Protect, any settings made when Song Protect was on are lost.

After you have finished all work for the day, turn on Song Protect immediately before shutting off the power to the VS-890. Furthermore, right after turning on the power to the VS-890 at the beginning the day's operations, you should immediately turn off Song Protect.

To Apply Song protect
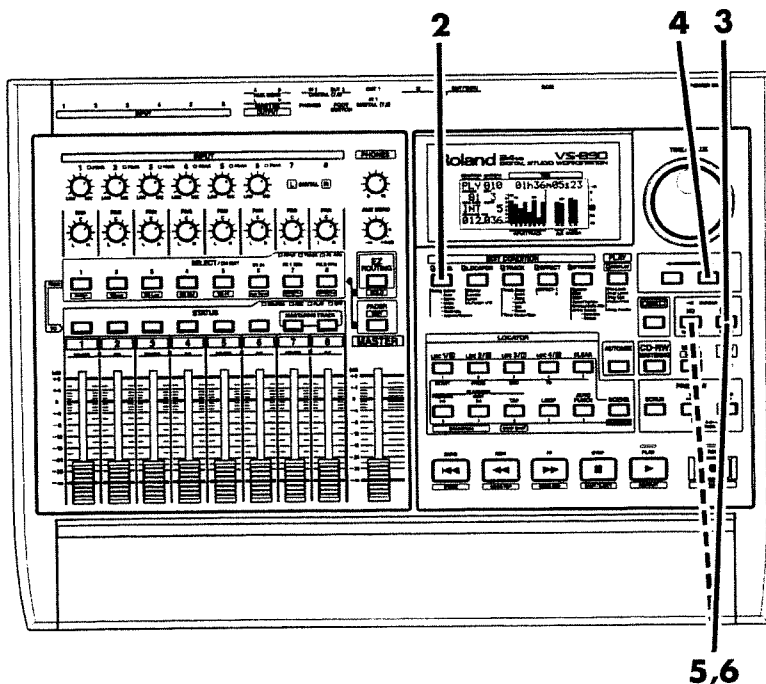
1

Make the current song the one to which you want to apply Song Protect.

2

Press **[SONG]** several times until "SNG Song Name/Prtct?" appears in the display.

3

Press **[YES (ENTER)]**. Song name appears in the display.

4

Press **PARAMETER [►►]**. "SNG ChangePrtct → On?" appears in the display.

5

Press **[YES (ENTER)]**. If you wish to cancel, press **[NO (CANCEL)]**.

6

"STORE Current?" appears in the display. If you wish to save the current song and then protect it, press **[YES (ENTER)]**. If you wish to protect the state in which Song Store was last executed without saving the current song, press **[NO (CANCEL)]**.

7

The song will be protected. "SNG — Complete —" appears in the display, and return to Play condition.
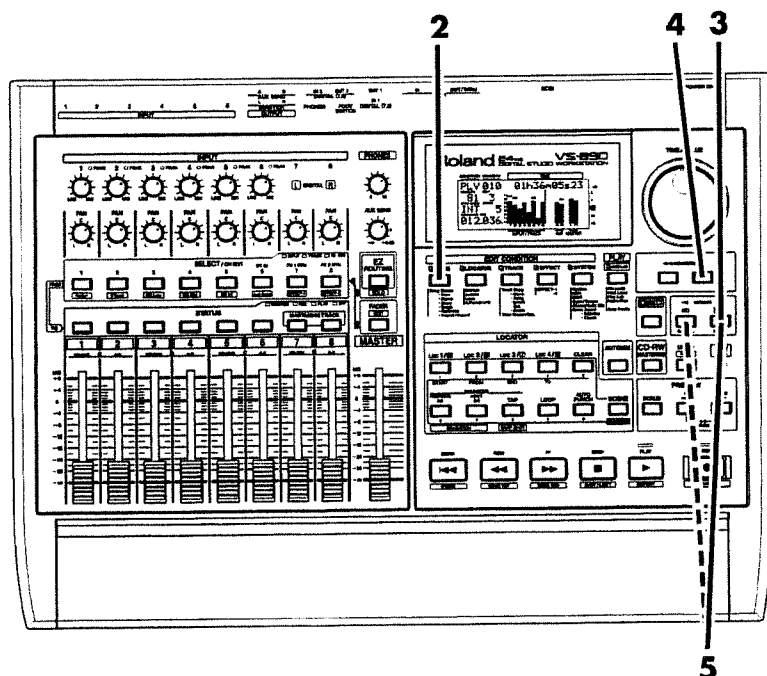
NOTE

It is not possible to defeat the Song Protect setting of a song that was created on a device other than the VS-890 (such as the VS-880 or VS-1680). For this reason if you press **PARAMETER [►►]** in step 3 when a non-VS-890 song is selected, a warning message will appear, and you will not be able to continue the procedure.

To Remove Song Protect

1
Select the song from which you currently want to remove the protect function.

2
Press **[SONG]** several times until "SNG Song Name/Prtct?" appears in the display.

3
Press **[YES (ENTER)]**. Song name appears in the display.

4
Press **PARAMETER [►►]**. "SNG ChangePrtct → Off?" appears in the display.

5
Press **[YES (ENTER)]**. If you wish to cancel, press **[NO (CANCEL)]**.

6
Song protect will be disabled. "SNG — Complete —" appears in the display, and return to Play condition.

NOTE

It is not possible to defeat the Song Protect setting of a song that was created on a device other than the VS-890 (such as the VS-880 or VS-1680). For this reason if you press **PARAMETER [►►]** in step 3 when a non-VS-890 song is selected, a warning message will appear, and you will not be able to continue the procedure.

Initializing the Disk (Drive Initialize)

When the hard disk is initialized, the entire contents of the disk will be erased. Make sure that the hard disk does not contain data you need to keep. If necessary, back up the data to the Roland CD recorder, etc.
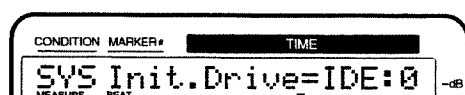
2 1 4 3

NOTE

If you accidentally delete data that you need, that data cannot be restored to its previous condition. Roland Corporation assumes no liability concerning such loss of data.
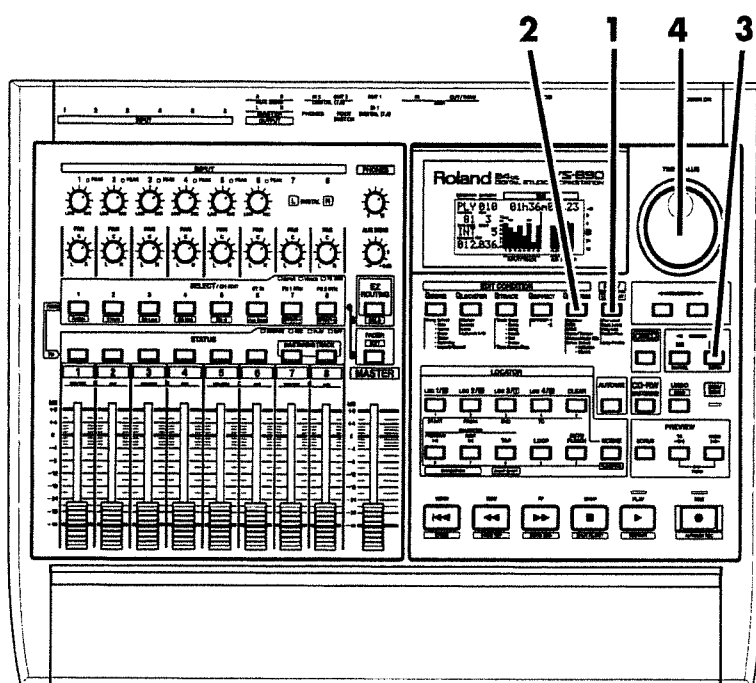
1 Press **[PLAY (DISPLAY)]**.

2 Press **[SYSTEM]** several times until "SYS DriveInitialize" appears in the display.

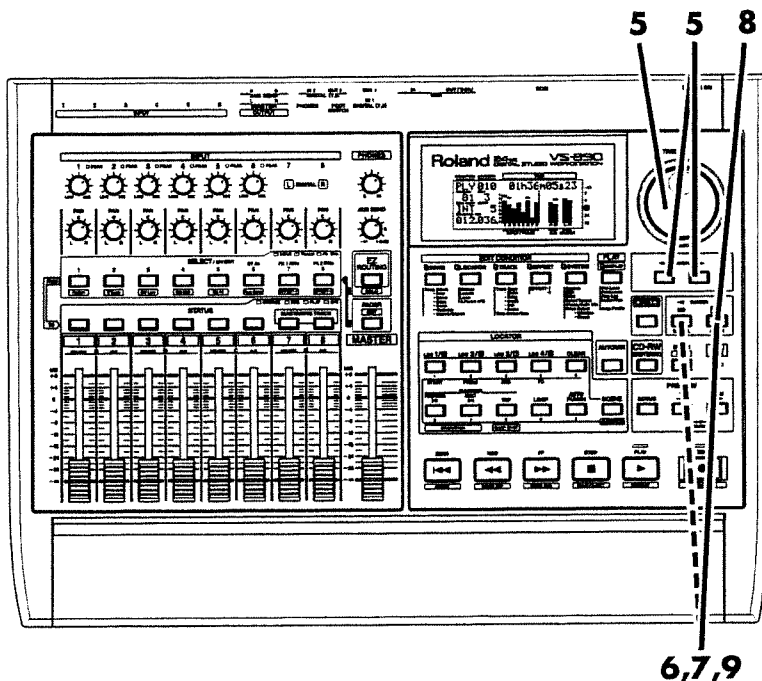**3** Press **[YES (ENTER)]**. "Init.Drive=" appears in the display.

NOTE

When a single hard disk or other disk is divided into partitions, **it is no possible to initialize only an individual partition**. The Drive Initialize operation will be performed on all partitions of that disk drive or other disk.

4 Rotate the **TIME/VALUE dial** to select the disk drive that you wish to initialize (IDE, SCSI0–SCSI7).

CONDITION MARKER#   TIME

SYS Init.Drive=IDE:0   -dB
MEASURE   BEAT

Init Drive (Initialize Drive)

Select the disk drive (IDE, SCSI0–SCSI7). "The internal hard disk will be shown as "IDE," and external disk drives will be shown as "SC0–SC7." The number following each disk drive indicates the partition number.
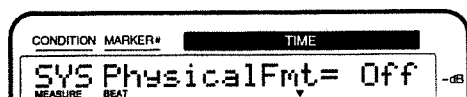
5 5 8

6,7,9

5 As needed, use **PARAMETER [◀◀] [▶▶]** and the **TIME/VALUE dial** to make the following settings.

```
CONDITION MARKER#          TIME
SYS PhysicalFmt= Off  -dB
MEASURE   BEAT
```

Physical Fmt (Physical Format)

Select whether or not to use physical formatting. In normal circumstances, set this to "Off." If a disk error is found with Surface Scan (p. 72), set this to "On," then initialize the hard disk again.

```
CONDITION MARKER#          TIME
SYS Partition=1000MB  -dB
MEASURE   BEAT
```
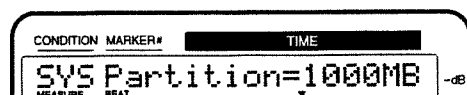
Partition

Select the partition size (500 MB or 1000 MB). In normal circumstances, select "1000 MB."

```
 CONDITION  MARKER#          TIME
  SYS SurfaceScan= Off  -dB
  MEASURE  BEAT       ▼
```
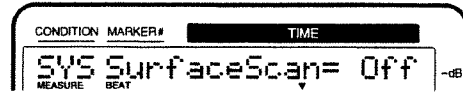
Surface Scan

This confirms that the read and write functions in all of the disk drive's partitions are operating correctly when the drive is initialized. In normal circumstances, set this to "On."

6

Press **[YES (ENTER)]**. "SYS Init.***:* OK ?" appears in the display. "***:*" refers to the drive's SCSI ID number. For example, "IDE:0" indicates a internal hard disk.

7

Press **[YES (ENTER)]** again. "SYS Init.***:*, Sure ?" (Really initialize the disk?) appears in the display.

8

Press **[YES (ENTER)]** again. If any songs to which Song Protect has been applied remain on the hard disk, the messages "Found ProtectSng" and "Init.Continue?" alternate in the display.

9

If you wish to save the current song, press **[YES (ENTER)]**; if not, then press **[NO (CANCEL)]**.

10

After the initialization is completed correctly, the VS-890 restarts automatically, and return to Play condition.

NOTE

The Surface Scan procedure takes a certain amount of time. Be aware that initializing a drive requires some time. This is not a malfunction. For example, when physical formatting is turned on, the time required to format one Zip disk is approximately 10 minutes. The progress of initialization will be shown in the display. Be sure not to turn the power off until initialization is complete.

Checking Disk Reliability (Surface Scan)

When initializing a hard disk or other disk, you can confirm that the read and write functions in all of the disk partitions are operating correctly. This is referred to as **Surface Scan**.

When Surface Scan is performed, it will require somewhat more time to initialize the drive, but the reliability of the hard disk will be enhanced. We recommend that you also perform Surface Scan when you initialize a drive.

1

Set Surface Scan to "On," and as described in **"Initializing the Disk (Drive Initialize)** (p. 69)", carry out the Drive Initialize procedure.

2

After initialization of the disk is completed, Surface Scan begins automatically.

3

When Surface Scan is completed, one of the following messages appears in the display.

"File System Err"

A read or write failure has occurred in a location which stores basic data used by the VS-890 for recording and playback. This disk drive cannot be used by the VS-890.

"____Defect"

The underlined portion will indicate the number of unusable memory locations in this drive. The larger this number is, the lower the reliability of this drive.

"— Complete —"

This drive has no unusable memory.

4

Press **[YES (ENTER)]**. VS-890 will restart.

Canceling Surface Scan

You may cancel Surface Scan by performing the following procedure.

1. Press **[NO (CANCEL)]**. "Cancel?" appears in the display.

2. Press **[YES (ENTER)]**. Surface Scan is new canceled. However, the memory found to be unusable up to that point is not registered.

3. The VS-890 restarts automatically.

NOTE

Performing this procedure deletes all contents saved on the disk. Conduct this check when initializing newly purchased disks or disks which previously have been used with a personal computer or other device. Be sure to make a backup copy of any disk you are presently using on the VS-890 before carrying out the procedure on it.

MEMO

If there are any places on the disk where the reading or writing of data cannot be performed, the VS-890 registers this as unusable memory. Recording and playback then become unavailable at the location.
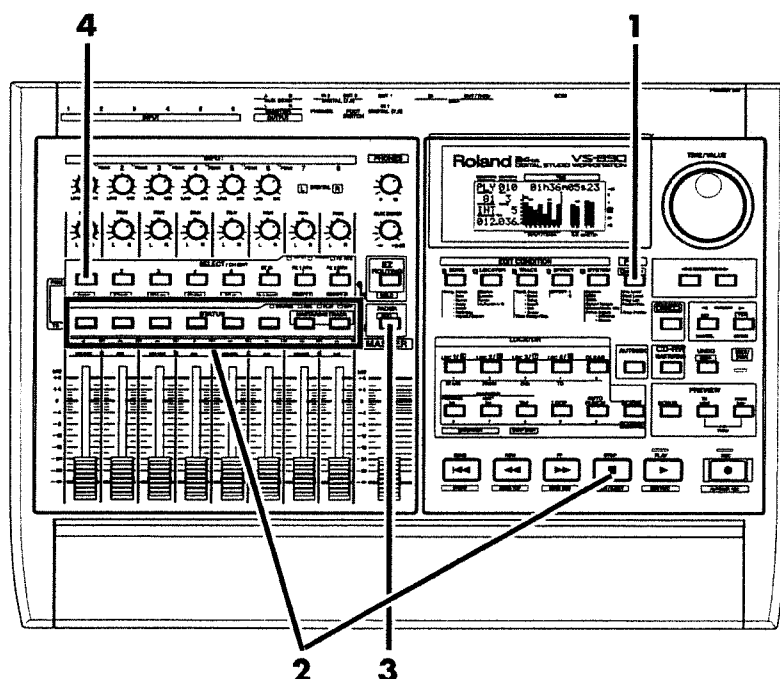
NOTE

The Surface Scan procedure takes a certain amount of time. Be aware that Surface Scan requires some time. This is not a malfunction. For example, the time required to conduct Surface Scan on one Zip disk (100MB) is approximately 10 minutes. The time it will take to conduct Surface Scan on your disk drive should be based on the size (capacity) of the disk. The progress of the Surface Scan procedure is shown in the display.

Using Effects

The effect is installed in the VS-890, up to 2 high-quality stereo effects will be available for your use.

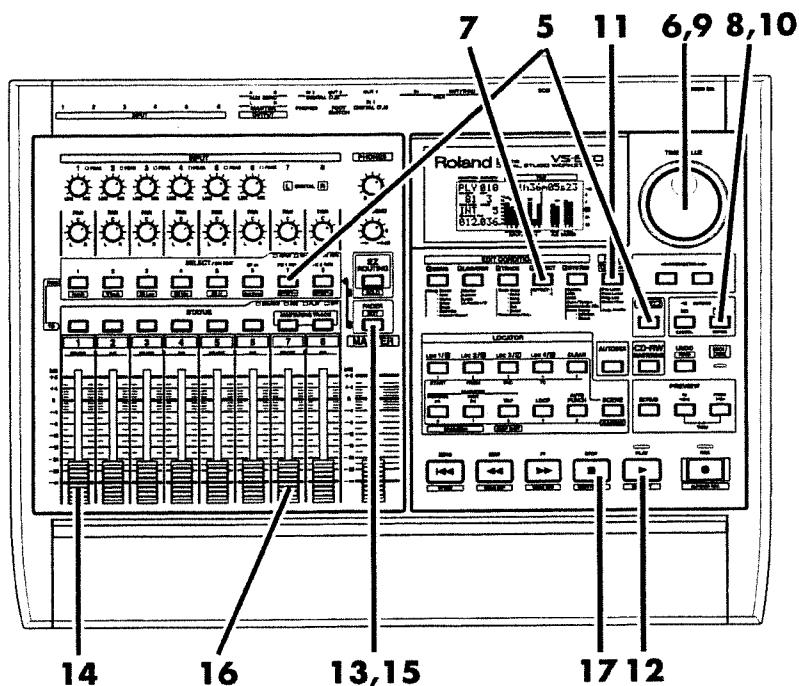## Applying a Send/Return Type Effect During Playback

It is common to apply a send/return type effect such as reverb or delay during playback. The following example shows how you can apply reverb (FX1) to track 1 during playback.

1 Press **[PLAY (DISPLAY)]**.

2 Select the track(s) for playback. Hold down **[STOP]** and press the track 1 **[STATUS]** button. **[STATUS]** will light green.

3 Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)

4 Press the **[SELECT (CH EDIT)]** button for the track channel to which you wish to apply the effect. For this example, press the track channel 1 **[SELECT (CH EDIT)]** button.
[SELECT (CH EDIT)] will light.

7　　5　　11　　6,9　8,10

14　　　16　　　13,15　　　　17 12

5

Hold down **[SHIFT]** and press **[EFFECT-1 (CH EDIT)]**.

6

Use the **TIME/VALUE dial** to turn the effect on/off. Select either "PreFade" or "PstFade."
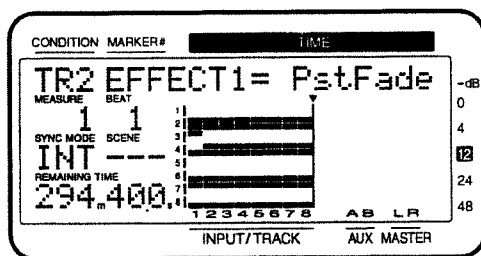
7

Press **[EFFECT]** several times until "EFFECT-1 PRM ?" appears in the display.

8

Press **[YES (ENTER)]**. The number and name of the currently selected effect will be displayed, and you will be able to select the effect.

9

Rotate the **TIME/VALUE dial** to select the effect you wish to use. For this example, select an effect such as "A00=RV:LargeHall."

10

After you have selected an effect, press **[YES (ENTER)]**.

```
CONDITION  MARKER#          TIME
FX1 Sel=RV:LargeHall  -dB
MEASURE   BEAT              ▼
```
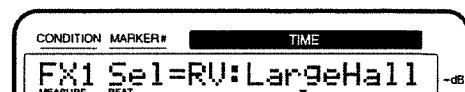
11

Preparations are now complete. Press **[PLAY (DISPLAY)]** to return to Play condition.

12

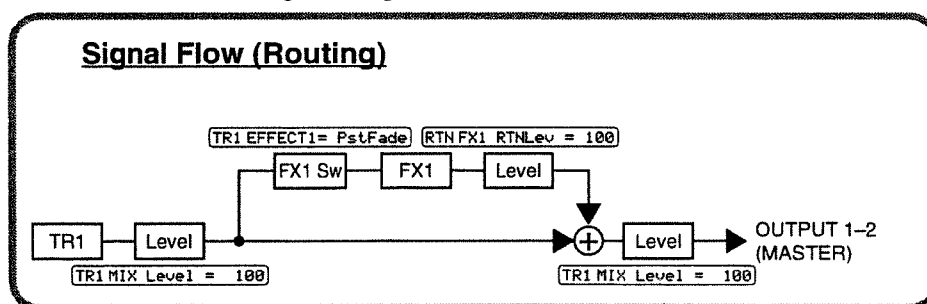Press **[PLAY]**. The song will be playback.

13

Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)

14.

Use channel fader 1 to adjust the volume of track 1.

15

Press **[FADER (EDIT)]** several times to let the FADER indicator light red. (Effect Return Mixer)

16

Use channel fader 7 (FX 1 RTN) to adjust the effect return level.

17

When the song ends, press **[STOP]**.

Signal Flow (Routing)

```
              TR1 EFFECT1= PstFade   RTN FX1 RTNLev = 100
                    ┌── FX1 Sw ── FX1 ── Level ──┐
                    │                            ▼
   TR1 ── Level ────┴──────────────────────► ⊕ ── Level ──► OUTPUT 1-2
        TR1 MIX Level = 100                TR1 MIX Level = 100   (MASTER)
```

Applying a Send/Return Type Effect Only to the Monitor Sound as You Record

The following example shows how a source connected to the INPUT 1 jack can be recorded on track 2 directly (without effects) while you apply a send/return type effect such as reverb or delay to the monitor sound. This is convenient when you wish to hear a reverb (FX1) on a vocal (for example) as you record, but would like to try out various reverb settings during playback.
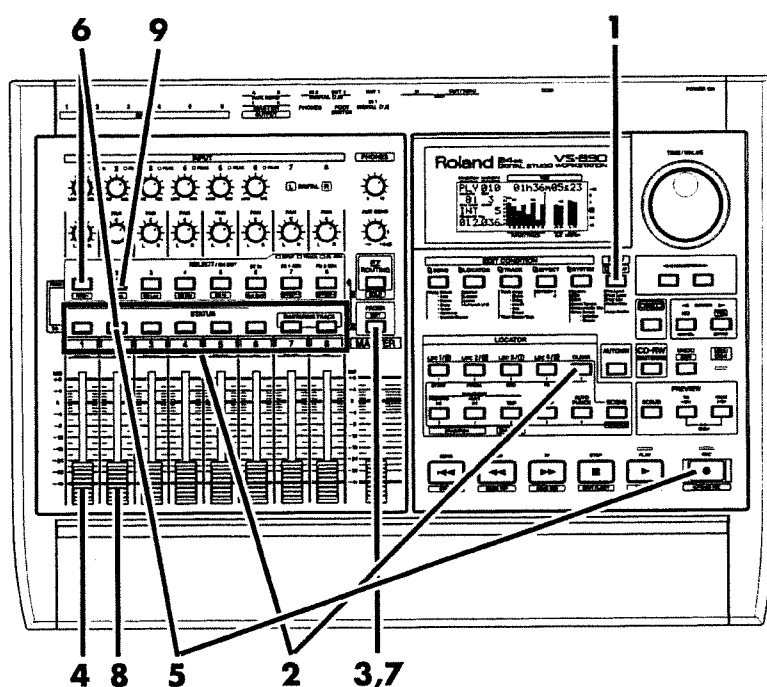
1 Press **[PLAY (DISPLAY)]**.

2 Hold down a **[STATUS]** button (of any track) and press **[CLEAR]**. The assignments of input sources to tracks will be cleared.

3 Press **[FADER (EDIT)]** several times to let the FADER indicator light orange. (Input Mixer)

4

Raise and lower channel fader 1, and verify that the volume changes. The input channel fader is used to make fine adjustments to the recording level. In order to record with optimal audio quality, the fader should normally be set in the 0 dB position.

5

Select the track for recording. Hold down **[REC]**, and press the **[STATUS]** button of the track that you wish to record. For this example, hold down **[REC]** and press the track 2 **[STATUS]** button. **[STATUS]** will blink red.

6

Select the source that will be recorded on the track. Hold down the **[STATUS]** button of the track that you wish to record, and press the **[SELECT (CH EDIT)]** button of the input channel that you wish to assign as the source. For this example, hold down the track 2 **[STATUS]** button and press the input channel 1 **[SELECT (CH EDIT)]** button. **[SELECT (CH EDIT)]** will blink.

7

Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)

8

Raise and lower channel fader 2, and verify that the volume changes. The track channel fader is used for monitoring. It does not affect the recording level. You can record even if you hear no sound. Adjust the fader to a comfortable level for monitoring.

9

Press the **[SELECT (CH EDIT)]** button for the channel to which you wish to apply the effect. For this example, press the track channel 2 **[SELECT (CH EDIT)]** button.
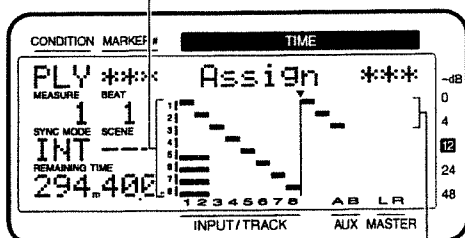**[SELECT (CH EDIT)]** will light.

MEMO
At this time, the sound of input channel 1 will no longer be output directly from master out.
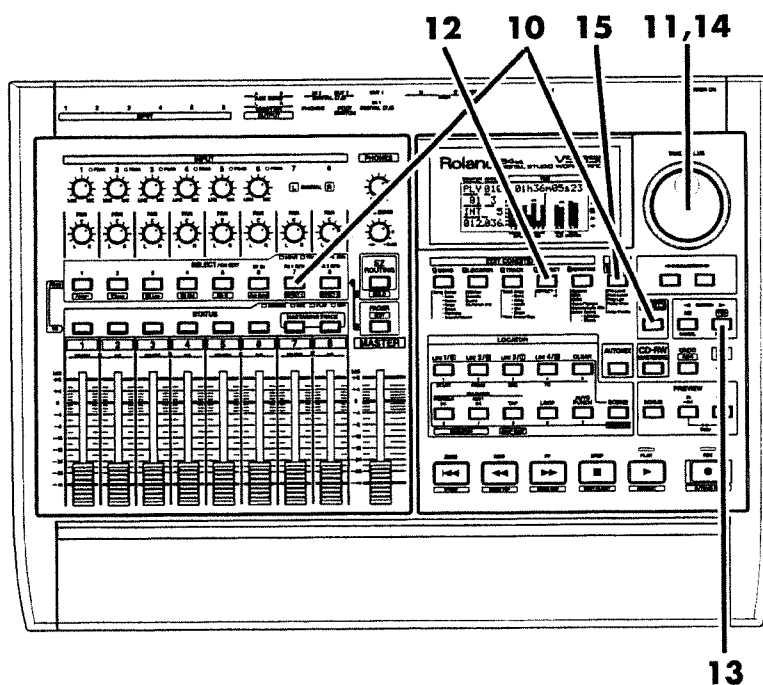
In Play condition, if you continue holding [STATUS]([1]-[8]; any track is OK) for a time, you can see the source and effect return that is assigned to the track.

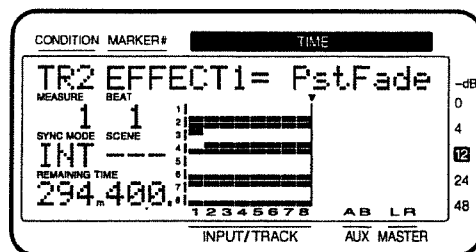Assigned sources 1–8 (upper line)
Assigned tracks 1–8 (lower line)

Recording Tracks (1–8)

Stereo In (first line)
Effect 1 (second line)
Effect 2 (third line)

12   10   15   11,14

13

10

Hold down [SHIFT] and press [EFFECT-1 (CH EDIT)].

11

Use the TIME/VALUE dial to turn the effect on/off. Select either "PreFade" or "PstFade.

```
CONDITION MARKER#          TIME
TR2 EFFECT1= PstFade   -dB
MEASURE  BEAT            1        0
   1    1                2        4
SYNC MODE  SCENE         3        12
INT  ---                 5        24
REMAINING TIME           6
294m400.                 7        48
         1 2 3 4 5 6 7 8   A B  L R
            INPUT/TRACK    AUX MASTER
```
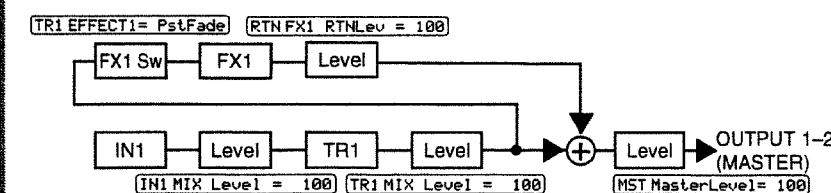
12
Press **[EFFECT]** several times until "EFFECT-1 PRM ?" appears in the display.

13
Press **[YES (ENTER)]**. The number and name of the currently selected effect will be displayed, and you will be able to select the effect.

14
Rotate the **TIME/VALUE dial** to select the effect you wish to use. For this example, select an effect such as "A00=RV:LargeHall."



```
CONDITION MARKER#          TIME
FX1 Sel=RV:LargeHall  -dB
MEASURE  BEAT
```
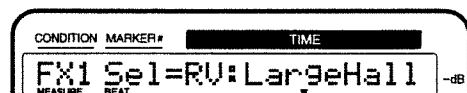
15
Preparations are now complete. Press **[PLAY (DISPLAY)]** to return to Play condition.

16
As described in "**Recording On a Track** (p. 31)", record a performance and then listen to it.

Signal Flow (Routing)


```
[TR1 EFFECT1= PstFade]  [RTN FX1 RTNLev = 100]
      FX1 Sw    FX1     Level
      IN1    Level    TR1    Level           Level    OUTPUT 1-2
                                                      (MASTER)
      [IN1 MIX Level = 100] [TR1 MIX Level = 100]  [MST MasterLevel= 100]
```

Switching Effects During Playback

Here's how you can switch effects while you playback a song, to hear the differences between various effects.
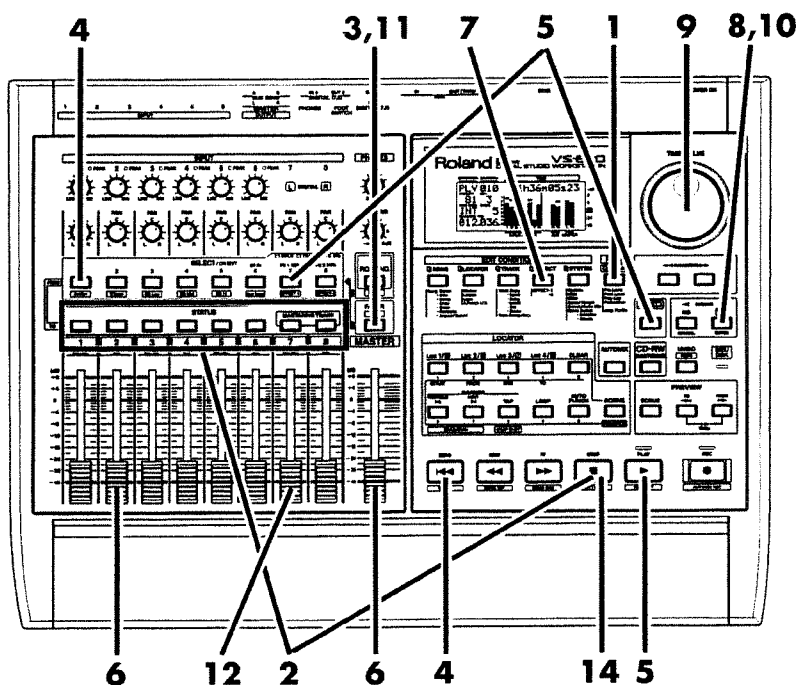
1   Press **[PLAY (DISPLAY)]**.

2   Select the track(s) for playback. Hold down **[STOP]** and press the **[STATUS]** button for the track(s) that you wish to playback. For this example, hold down **[STOP]** and press the track 2 **[STATUS]** button. To this point in the examples, we have not recorded anything on track 2.

3   Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)

4   Press **[ZERO]**. You will return to the beginning of the song.

**5**   Press **[PLAY]**. The song will be playback.

6

Use channel fader 2 and the master fader to adjust the volume to a comfortable level for listening.

7

Press **[EFFECT]** several times until "EFFECT-1 PRM ?" appears in the display.

8

Press **[YES (ENTER)]**. The number and name of the currently selected effect will be displayed, and you will be able to select the effect.

9

Use the **TIME/VALUE dial** to move the cursor to the effect that you wish to select. The difference will be easy to hear if you select an effect such as "A05=RV:VocalRoom."

10

After you have selected an effect, press **[YES (ENTER)]**.
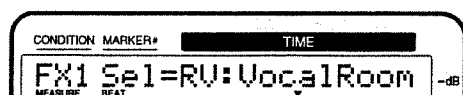
```
CONDITION MARKER•      ████ TIME ████
 FX1 Sel=RV:VocalRoom  -dB
 MEASURE  BEAT              ▾
```

11

Press **[FADER (EDIT)]** several times to let the FADER indicator light red. (Effect Return Mixer)

12

Use channel fader 7 (FX 1 RTN) to adjust the effect return level.

13

If you wish to hear other effects, repeat steps 9–12.

14

When the song ends, press **[STOP]**.

Applying a Send/Return Type Effect While You Record

Here we will give an example of how a send/return type effect such as reverb can be applied to the source of the INPUT 1 jack, and the direct sound and effect sound recorded together on track 3. This is the method you will use when, for example, you wish to apply reverb to a vocal and record both the direct sound and effect sound together.
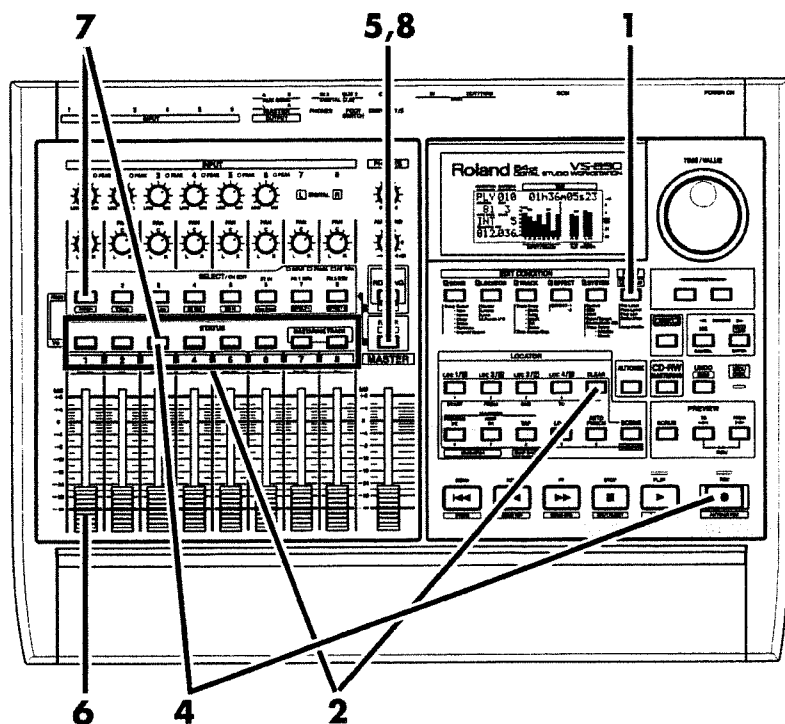
1 Press **[PLAY (DISPLAY)]**.

2 Hold down a **[STATUS]** button (of any track) and press **[CLEAR]**. The assignments of input sources to tracks will be cleared.

3 As described in **Adjusting the Input Sensitivity** (p. 30)", adjust the recording level.

4 Select the track that you wish to record. Hold down **[REC]**, and press the **[STATUS]** button of the track that you wish to record. For this example, hold down **[REC]** and press the track 3 **[STATUS]** button. **[STATUS]** will blink red.

5

Press **[FADER (EDIT)]** several times to let the FADER indicator light orange. (Input Mixer)

6

Raise and lower channel fader 1, and verify that the volume changes. The input channel fader is used to make fine adjustments to the recording level. In order to record with optimal audio quality, the fader should normally be set in the 0 dB position.

7

Select the source that will be recorded on the track. Hold down the **[STATUS]** button of the track that you wish to record, and press the **[SELECT (CH EDIT)]** button of the input channel that you wish to assign as the source. For this example, hold down the **[STATUS]** button of track 3, and press the input channel 1 **[SELECT (CH EDIT)]** button so it begins to blink.
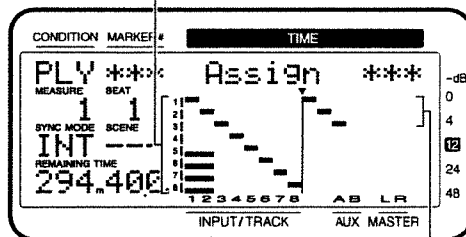
> **MEMO**
> At this time, the sound of input channel 1 will no longer be output directly from master out.

In Play condition, if you continue holding **[STATUS]**([1]-[8]; any track is OK) for a time, you can see the source and effect return that is assigned to the track.

Assigned sources 1–8 (upper line)
Assigned tracks 1–8 (lower line)

```
CONDITION  MARKE #              TIME
PLY ***         Assign    ***     -dB
MEASURE   BEAT                     0
   1    1                         4
SYNC MODE  SCENE                  12
INT ----                         24
REMAINING TIME                   48
294.40       12345678   AB  LR
            INPUT/TRACK   AUX  MASTER
```
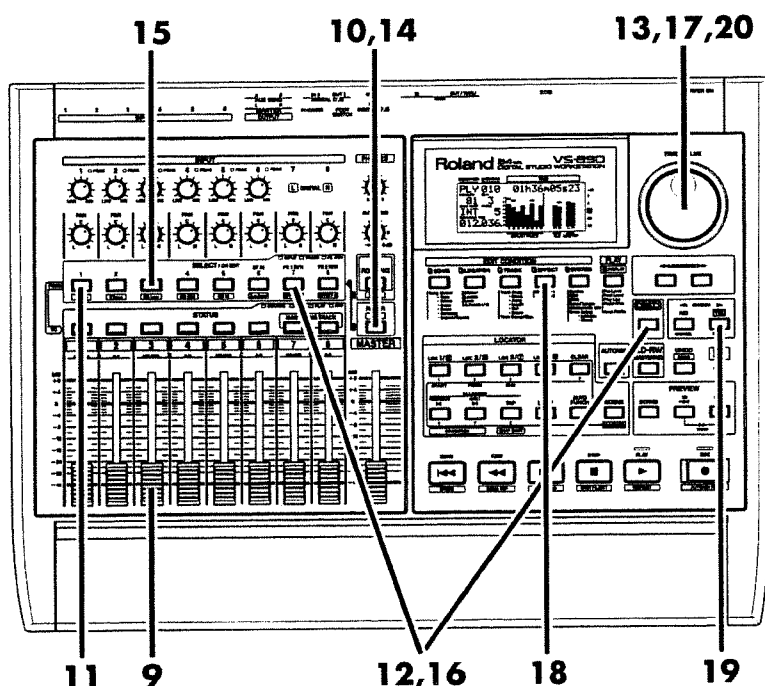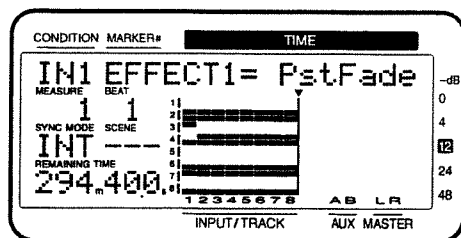
Recording Tracks (1–8)

Stereo In (first line)
Effect 1 (second line)
Effect 2 (third line)

8

Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)

9

Raise and lower channel fader 3, and verify that the volume changes. The track channel fader is used for monitoring. It does not affect the recording level. You can record even if no sound is heard. Adjust the fader to a comfortable volume for listening.

10

Press **[FADER (EDIT)]** several times to let the FADER indicator light orange. (Input Mixer)

11

Press the **[SELECT (CH EDIT)]** button of the channel to which you wish to apply the effect. For this example, press the input channel 1 **[SELECT (CH EDIT)]** button. **[SELECT (CH EDIT)]** will light.

12

Hold down a **[SHIFT]** and press **[EFFECT-1 (CH EDIT)]**.

13

Use the **TIME/VALUE dial** to turn the effect on/off. Select either "PreFade" or "PstFade.

```
CONDITION  MARKER#              TIME
IN1 EFFECT1= PstFade   -dB
MEASURE    BEAT                        0
    1    1                             4
SYNC MODE  SCENE                       12
INT ---                                24
REMAINING TIME                         48
294.400.
            12345678   AB  LR
           INPUT/TRACK    AUX  MASTER
```

14
Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)

15
Turn off the effect switch for the track channel that you want to record. (For this example, [3]).

16
Hold down a **[SHIFT]** and press **[EFFECT-1 (CH EDIT)]**.

17
Rotate the TIME/VALUE dial to select "Off."

18
Press **[EFFECT]** several times until "EFFECT-1 PRM ?" appears in the display.

19
Press **[YES (ENTER)]**. The number and name of the currently selected effect will be displayed, and you will be able to select the effect.

20
Rotate the **TIME/VALUE dial** to select the effect you wish to use. For this example, select an effect such as "A00=RV:LargeHall."

NOTE
Be sure to turn off the effect switch of track channel 3. Otherwise, you will create a feedback loop.

Using Effects
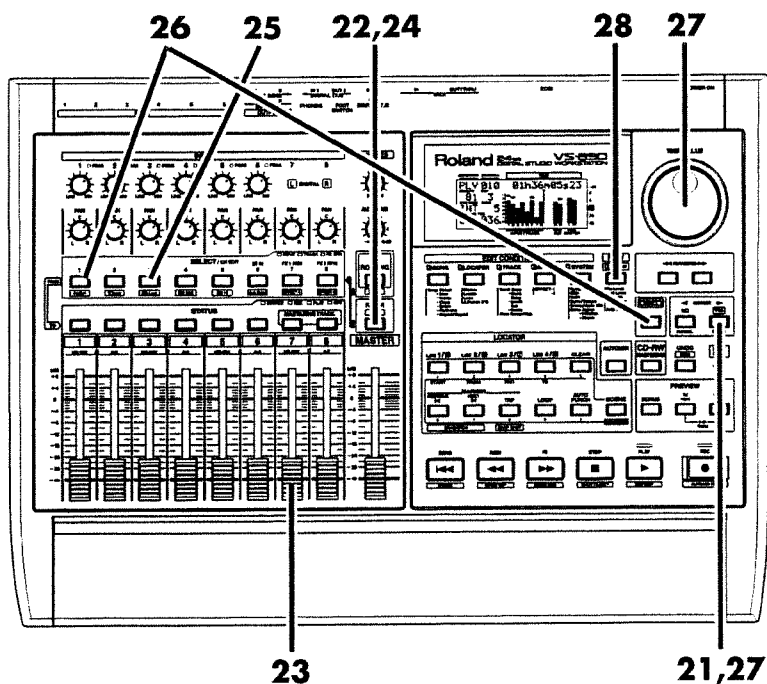
21

After you have selected an effect, press **[YES (ENTER)]**.
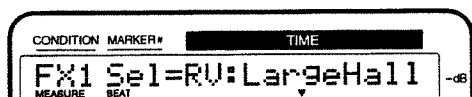
22

Press **[FADER (EDIT)]** several times to let the FADER indicator light red. (Effect Return Mixer)

23

Raise and lower channel fader 7 (FX 1 RTN), and verify that the effect return volume changes. The input channel fader is used to make fine adjustments to the recording level. Set it to an appropriate position.
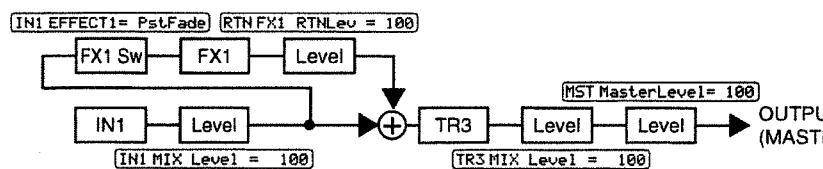
24

Assign the effect return to the recording track. Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)

MEMO

At this time, the return signal from the effect will no longer be output directly to the master out.

25

Press the **[SELECT (CH EDIT)]** button of the channel to which you wish to apply the effect. For this example, press the track channel 3 **[SELECT (CH EDIT)]** button. **[SELECT (CH EDIT)]** will light.

26

Hold down **[SHIFT]** and press **[Assign (CH EDIT)]**.

27

Rotate the **TIME/VALUE dial** to select the effect return that you wish to record, and press **[YES (ENTER)]**. For this example, select "FX1" and press **[YES (ENTER)]**.

28

Preparations are now complete. Press **[PLAY (DISPLAY)]** to return to the Play condition.

29

As described in **"Recording On a Track** (p. 31)", record a performance and then listen to it.

Signal Flow (Routing)

[IN1 EFFECT1= PstFade] [RTN FX1 RTNLev = 100]
FX1 Sw — FX1 — Level

[MST MasterLevel= 100]
IN1 — Level ——→(⊕)— TR3 — Level — Level —▶ OUTPU (MAST
[IN1 MIX Level = 100] [TR3 MIX Level = 100]

Applying an Insertion-Type Effect During Playback

When playing back an acoustic guitar or vocal, it is common to insert an effect such as "Guitar Multi" or "Vocal Multi." Here we will give an example of applying an insertion-type effect such as Mic Simulator (FX2) to track 1 during playback.
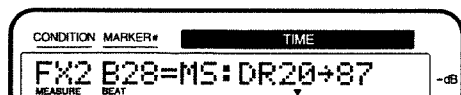

1
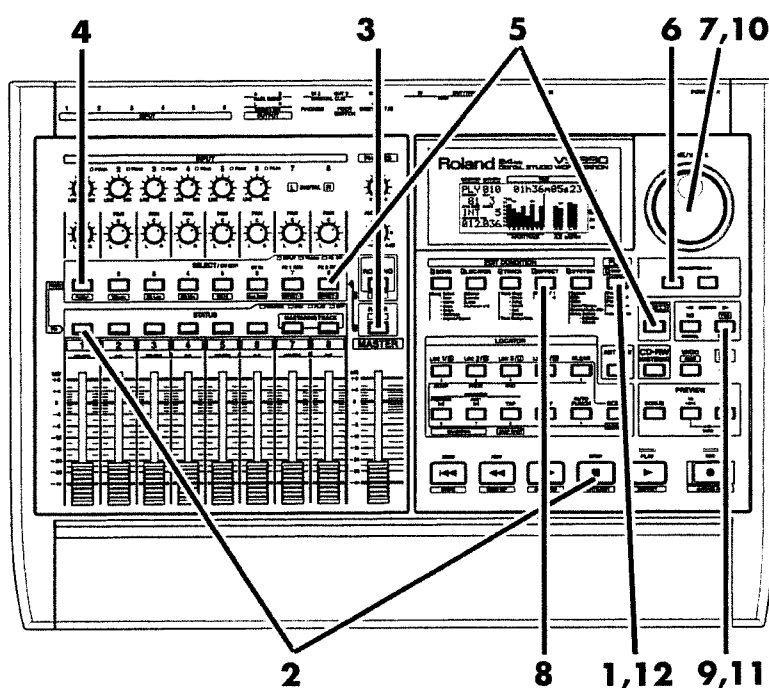
Press **[PLAY (DISPLAY)]**.

2

Select the track that you wish to playback. Hold down **[STOP]** and press the track 1 **[STATUS]** button. **[STATUS]** will light green.

3

Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)

4

Press the **[SELECT (CH EDIT)]** button for the track channel to which you wish to apply the effect. For this example, press the track channel 1 **[SELECT (CH EDIT)]** button.
[SELECT (CH EDIT)] will light.

5

Hold down **[SHIFT]** and press **[EFFECT-2 (CH EDIT)]**.

6

Press **PARAMETER [◄◄]**. "FX2 Ins =" appears in the display.

7

Rotate the **TIME/VALUE dial** to turn the effect on/off. Select "Insert."

```
CONDITION  MARKER#          TIME

TR1 FX2 Ins = Insert    -dB
MEASURE   BEAT                        0
  1    1   1                          4
SYNC MODE  SCENE  3                   12
INT ----   5                         24
REMAINING TIME                       48
294.400.   12345678   AB  LR
          INPUT/TRACK    AUX MASTER
```

8

Press **[EFFECT]** several times until "EFFECT-2 PRM ?" appears in the display.

9

Press **[YES (ENTER)]**. The number and name of the currently selected effect will be displayed, and you will be able to select the effect.

10

Rotate the **TIME/VALUE dial** to select the effect you wish to use. For this example, select an effect such as "B28=MS:DR20→87."

```
CONDITION  MARKER#          TIME

FX2 B28=MS:DR20→87    -dB
MEASURE   BEAT
```

11

After you have selected an effect, press **YES (ENTER)]**.

12

Preparations are now complete. Press **[PLAY (DISPLAY)]** to return to Play condition.

Using Effects

14

15   **16 13**

13 Press **[PLAY]**. Notice that the effect is applied to the sound.

14 Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)

**15** Use channel fader 1 to adjust the volume of track 1.

16 When the song ends, press **[STOP]**.

Signal Flow (Routing)

```
                          ( FX2  InsSend =100)

   ┌─────┐   ┌────────────┐   ┌───────┐   ┌─────┐
   │ TR1 │───│ FX2 Ins Sw │───│ Level │───│ FX2 │
   └─────┘   └────────────┘   └───────┘   └─────┘
        (TR1 FX2  Ins = Insert)                │


        (TR1 Mix Level =  100)
   ┌───────┐   ┌───────┐   ┌───────┐      OUTPUT 1–2
   │ Level │───│ Level │───│ Level │───▶  (MASTER)
   └───────┘   └───────┘   └───────┘
   ( FX2  InsRtn = 100) (MST MasterLevel= 100)
```

Inserting the Same Effect into Another Track as Well

If in step 7 you selected "Insert" or "InsertS," that effect cannot be inserted into another channel/track. If you chose "InsertL" or "InsertR," that effect can be inserted into only one other channel/track.
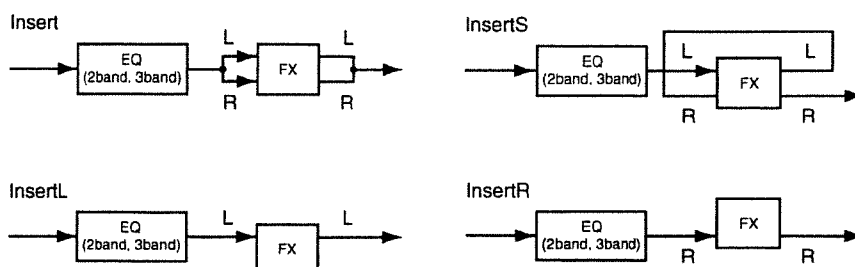
If You Wish to Use the Same Effect Both as Send/Return and Insertion

It is not possible to use the same effect for both insertion and send/return.

Even if the **FXIns** (Effect Insert Switch) parameter is set to except "Off," the **EFFECT** (Effect Switch) parameter can be set to either "PreFade" or "PstFade." This is because the VS-890 is able to send the signal of the FX bus not only to the effect but also to another output jack.

For example if you insert FX2 into track 1, the FX2 bus will not be used (it will be vacant). In this situation if you set the track 2 **EFFECT2** to "PstFade," the track 2 signal will be sent to the FX2 bus, but it will not be sent to the effect itself (FX2). Since the signal of the FX bus can be assigned to the outputs Digital out 1/2, AUX out A/B, Master, and Monitor, you can make settings so that the signal of each track is sent from separate outputs. In other words if the effect (FX2) is inserted, you can use the unused FX bus (FX2) as an AUX bus.
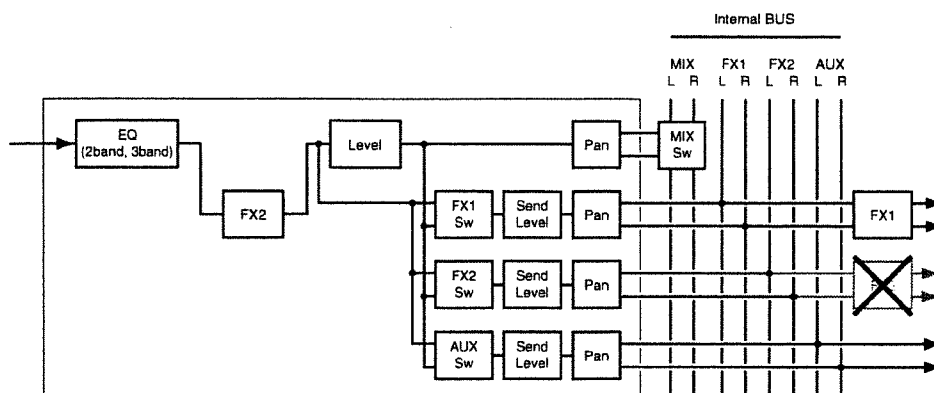
Applying an Insertion-Type Effect During Recording

When recording electric guitar or vocals etc., it is common to insert an effect such as Guitar Multi or Vocal Multi. Here we will describe how you can connect an electric guitar to the INPUT 6 jack, apply an effect (FX2), and record it on track 1.
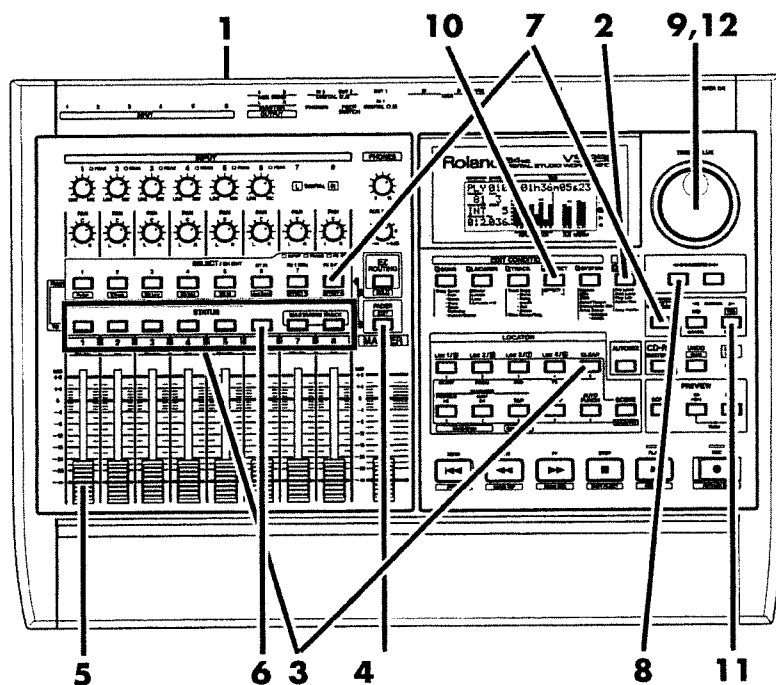
1

Connect an electric guitar to the INPUT 6 jack.

2

Press **[PLAY (DISPLAY)]**.

3

Hold down a **[STATUS]** button (of any track) and press **[CLEAR]**.

4

Press **[FADER (EDIT)]** several times to let the FADER indicator light orange. (Input Mixer)

MEMO

In order to record the electric guitar with the best possible sound quality, please use an active-type guitar. Alternatively, use a direct box (such as the BOSS DI-1) or a compact-type effect unit. In this case, the compact effect unit will be used to lower the impedance. When you do not want to use an effect provided by a compact effects unit, have its **power switched on, and the effect switched off** (THRU status).

MEMO

This will clear any existing input and/or track routing assignments.

5

Raise and lower channel fader 6, and verify that the volume changes. The input channel fader is used to make fine adjustments to the recording level. In order to record with optimal audio quality, the fader should normally be set in the 0 dB position.

6

Press the **[SELECT (CH EDIT)]** button of the channel to which you wish to apply the effect. For this example, press the input channel 6 **[SELECT (CH EDIT)]** button. **[SELECT (CH EDIT)]** will light.

7

Hold down **[SHIFT]** and press **[EFFECT-2 (CH EDIT)]**.

8

Press **PARAMETER [◄◄]**. "FX2 Ins =" appears in the display.

9

Rotate the **TIME/VALUE dial** to turn the effect on/off. Select "Insert."

```
CONDITION  MARKER#            TIME
 IN6 FX2 Ins = Insert        -dB
 MEASURE    BEAT                    0
   1   1   2                        4
 SYNC MODE  SCENE  3
 INT ---    4                      12
 REMAINING TIME  6
 294.400   7                       24
            12345678   AB  LR      48
            INPUT/TRACK   AUX MASTER
```
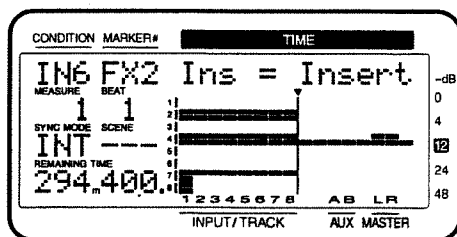
10

Press **[EFFECT]** several times until "EFFECT-2 PRM ?" appears in the display.

11

Press **[YES (ENTER)]**. The number and name of the currently selected effect will be displayed, and you will be able to select the effect.

12

Rotate the **TIME/VALUE dial** to select the effect you wish to use. For this example, select an effect such as "A41=GT:Rock Lead."

NOTE

If the display indicates "FX2—," the effect (FX2) is inserted into another channel, and therefore cannot be inserted into this channel (p. 91). Either turn off effect insertion for the channel that is using the effect, or insert a different effect into this channel.

13

After you have selected an effect, press **YES (ENTER)]**.

```
CONDITION  MARKER#              TIME
  FX2 Sel=GT:Rock  Lead  -dB
MEASURE  BEAT
```
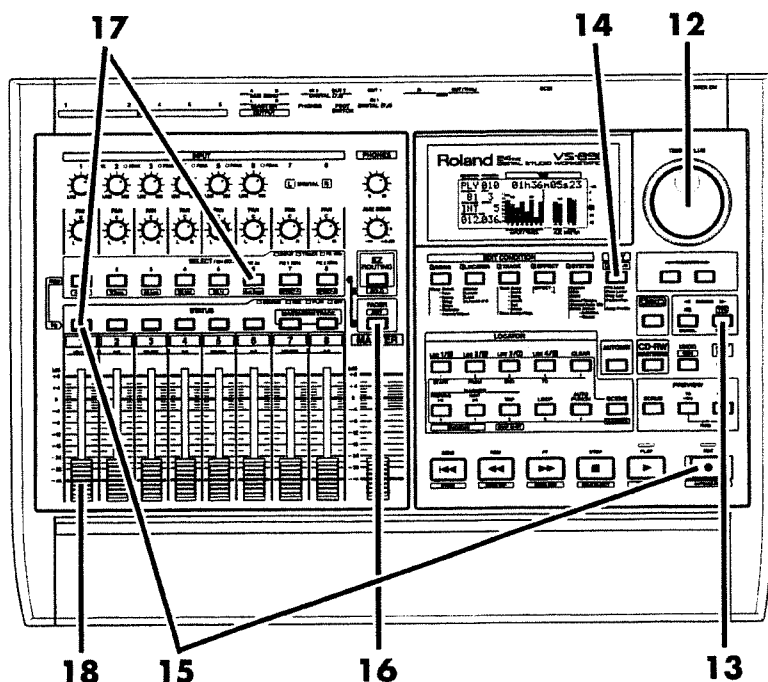
14

Preparations are now complete. Press **[PLAY (DISPLAY)]** to return to Play condition.

15

Select the track that you wish to record. Hold down **[REC]**, and press the **[STATUS]** button of the track that you wish to record. For this example, hold down **[REC]** and press the track 1 **[STATUS]** button. **[STATUS]** will blink red.

16

Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)

In Play condition, if you continue holding [STATUS]([1]-[8]; any track is OK) for a time, you can see the source and effect return that is assigned to the track.

Assigned sources 1–8 (upper line)
Assigned tracks 1–8 (lower line)


```
CONDITION  MARKER #              TIME
PLY ***       Assign      ***    -dB
MEASURE   BEAT                         0
   1    1                              4
SYNC MODE  SCENE                      12
INT  ---                              24
REMAINING TIME                       48
294.400   12345678   A B  L R
             INPUT/TRACK   AUX MASTER
```
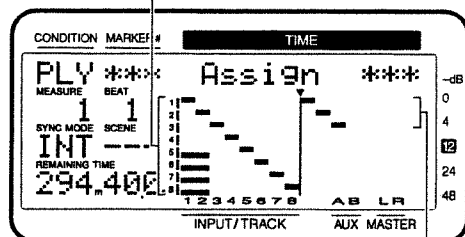
Recording Tracks (1–8)

Stereo In (first line)
Effect 1 (second line)
Effect 2 (third line)

17

Select the source that will be recorded on the track. Hold down the **[STATUS]** button of the track that you wish to record, and press the **[SELECT (CH EDIT)]** button of the input channel that you wish to assign as the source. For this example, hold down the track 1 **[STATUS]** button, and press the input channel 6 **[SELECT (CH EDIT)]** button so it begins to blink.

18

Raise and lower channel fader 1, and verify that the volume changes. The track channel fader is used for monitoring. It does not affect the recording level. You can record even if no sound is heard. Set the fader to a comfortable level for listening.

19

As described in "**Recording On a Track** (p. 31)", record your performance and listen to the result.
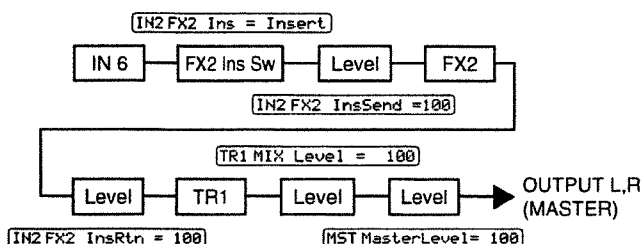
MEMO

At this time, the sound of input channel 6 will no longer be output directly from master out.

Signal Flow (Routing)


```
              IN2 FX2 Ins = Insert

  IN 6 ─── FX2 Ins Sw ─── Level ─── FX2

              IN2 FX2 InsSend =100

        TR1 MIX Level = 100
                                          OUTPUT L,R
  Level ─── TR1 ─── Level ─── Level ──▶   (MASTER)

IN2 FX2 InsRtn = 100        MST MasterLevel= 100
```

Add Finishing Touches to Your Song

Here we will explain the procedure by which a recorded performance can be mixed down on the VS-890 to a two-track stereo master, and then recorded as an original audio CD.

Combining the Performances of Multiple Tracks (Track Bouncing)

Performances that are recorded on two or more tracks can be mixed, and re-recorded on one or two other vacant tracks. This process is called **Track Bouncing**, and is convenient when you are beginning to run out of vacant tracks.

In order to create an original audio CD, you can specify two of the VS-890's tracks as the left track and right track, and write them to a CD-R disc. A performance that has not yet been mixed down must be mixed down (bounced) to 2-track stereo.

Here we will demonstrate an example of mixing down a performance that was recorded on tracks 1–4, and applying reverb (FX1) to the entire song as we re-record it to tracks 5 and 6 in stereo.

1 Press **[PLAY (DISPLAY)]**.

MEMO

In order to create an original audio CD, you will need the Roland CD recorder (sold separately).

2
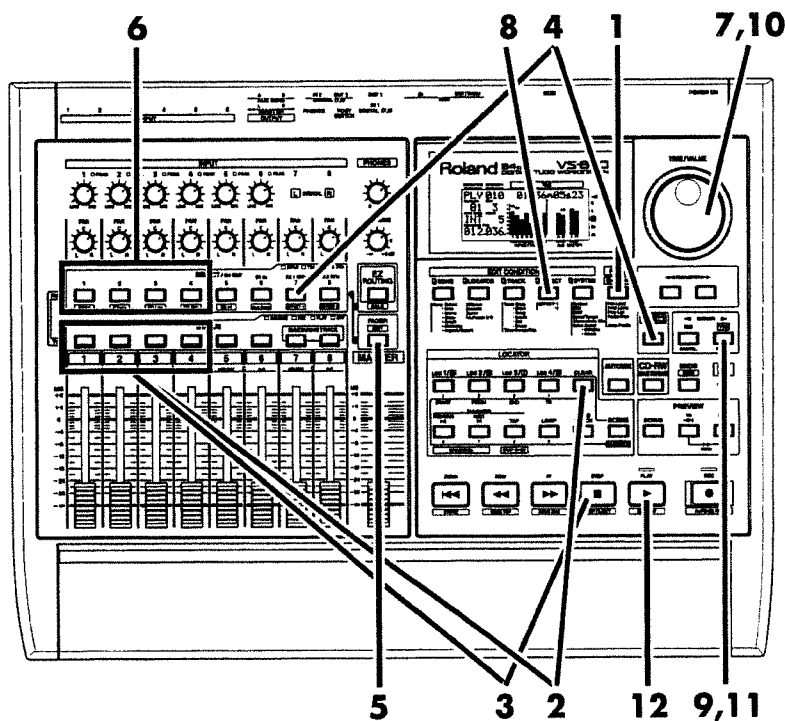
Hold down a **[STATUS]** button (of any track) and press **[CLEAR]**. This will clear any existing input and/or track routing assignments.

3

Select the track that you wish to playback. Hold down **[STOP]** and press the **[STATUS]** button of the tracks that you wish to playback. For this example, hold down **[STOP]** and press the track 1–4 **[STATUS]** buttons. **[STATUS]** will light green.

4

Hold down **[SHIFT]** and press **[EFFECT-1 (CH EDIT)]**.

5

Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)

6

Press the **[SELECT (CH EDIT)]** button of the track channel(s) to which you wish to apply the effect. For this example, press the track channel 1–4 **[SELECT (CH EDIT)]** button.
[SELECT (CH EDIT)] will light.

7

Rotate the **TIME/VALUE dial** to turn the effect on/off. Select either "PreFade" or "PstFade."

8

Press **[EFFECT]** several times until "EFFECT-1 PRM ?" appears in the display.

9

Press **[YES (ENTER)]**. The number and name of the currently selected effect will be displayed, and you will be able to select the effect.

10

Rotate the **TIME/VALUE dial** to select the effect you wish to use. For this example, select an effect such as "P000 RV:LargeHall."

11

After you have selected an effect, press **[YES (ENTER)]**.

Be sure to turn off the effect switch of track channels 5 and 6.
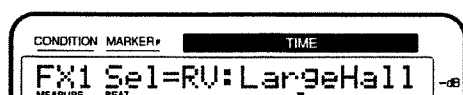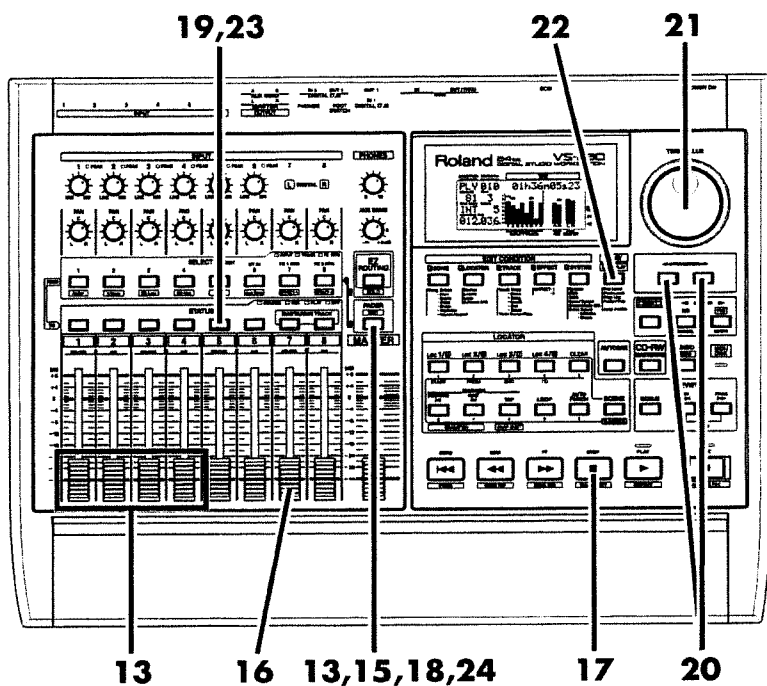
```
CONDITION MARKER►          TIME
  FX1 Sel=RV:LargeHall  -dB
MEASURE   BEAT        ▼
```

19,23   **22**   **21**

13   **16**   **13,15,18,24**   **17**   **20**

12 Press **[PLAY]**. The song will be playback.

13 Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)

14 Use channel faders 1–4 to adjust the volume balance of the tracks. At this time, the sound that you are monitoring (volume levels and pan) will be recorded on tracks 5 and 6 just as you hear it. It is best to record at as high a level as possible without allowing the sound to distort.

15 Press **[FADER (EDIT)]** several times to let the FADER indicator light red. (Effect Return Mixer)

16 Use channel fader 7 (FX 1 RTN) to adjust the effect return level. At this time, the sound that you are monitoring will be recorded to tracks 5 and 6 exactly as you hear it.

17
When you finish adjusting the volume, press **[STOP]**. The song will stop.

18
Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)

19
Press the **[SELECT (CH EDIT)]** button for one of the track channels you wish to record (whether left or right does not matter). For this example, press the track channel 5/6 **[SELECT (CH EDIT)]** button.

20
Press **PARAMETER [◄◄]** or **[◄◄]** to "Channel Link=" appears in the display.

21
Use the **TIME/VALUE dial** to turn Channel Link "On."

?
Channel Link (Owner's Manual "Glossary")

```
CONDITION MARKER#              TIME

TRc Channel Link= On   -dB
 MEASURE    BEAT                        0
    1    1                              4
SYNC MODE  SCENE                        12
INT ---                                 24
REMAINING TIME                          48
294.400.  12345678   AB  LR
            INPUT/TRACK   AUX MASTER
```
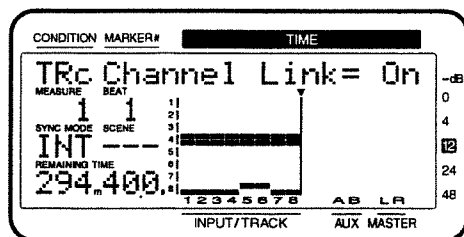
22
Press **[PLAY (DISPLAY)]** to return to Play condition.

23
Press the track 5/6 **[STATUS]** button so that the indicator lights orange.

24
Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)
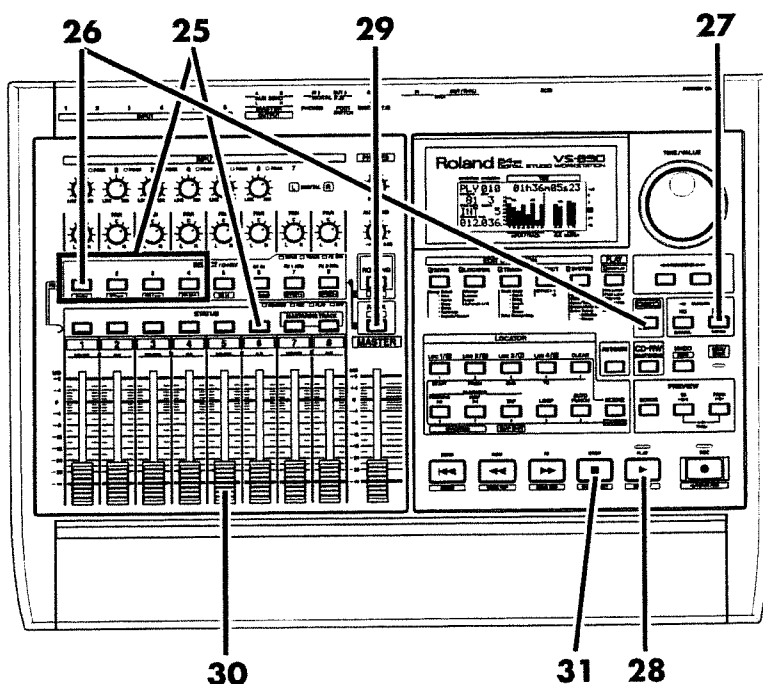
25

Assign the playback tracks to the recording tracks (track c: 5&6). Hold down the track 5/6 **[STATUS]** and press the track channel 1–4 **[SELECT (CH EDIT)]** button.
[SELECT (CH EDIT)] will blink.

26

Hold down **[SHIFT]** and press **[Assign (CH EDIT)]**.

27

Rotate the **TIME/VALUE dial** to select the source that you wish to record, and press **[YES (ENTER)]**. For this example, select "TR1"–"TR4" and "FX1" respectively, and then press **[YES (ENTER)]**.

MEMO
At this time, the sounds of track 1–4 and FX1 return will no longer be output directly from master out.
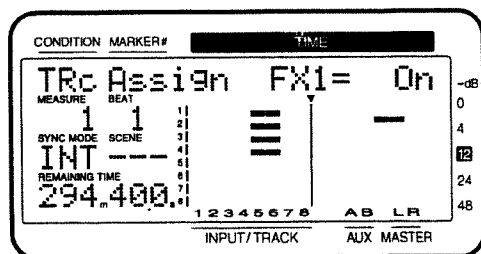
In Play condition, if you continue holding **[STATUS]** ([1]-[8]; any track is OK) for a short time longer, you can check which source is assigned to each track.

Assigned sources 1–8 (upper line)
Assigned tracks 1–8 (lower line)

Recording Tracks (1–8)

Stereo In (first line)
Effect 1 (second line)
Effect 2 (third line)
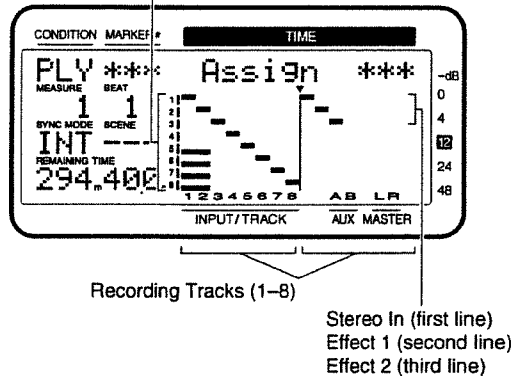
28

Press **[PLAY]**. The song will be playback.

29

Press **[FADER (EDIT)]** several times to let the FADER indicator light green. (Track Mixer)

30

Raise and lower channel fader 5/6 and verify that the volume of the recording tracks (5 and 6) changes. Track channel fader 5 is used for monitoring. It does not affect the recording level. You can record even if you hear no sound. Adjust the volume to a comfortable listening level.

31

Press **[STOP]**. The song will stop.

19,23   **22**   **21**

13   **16**   **13,15,18,24**   **17**   **20**
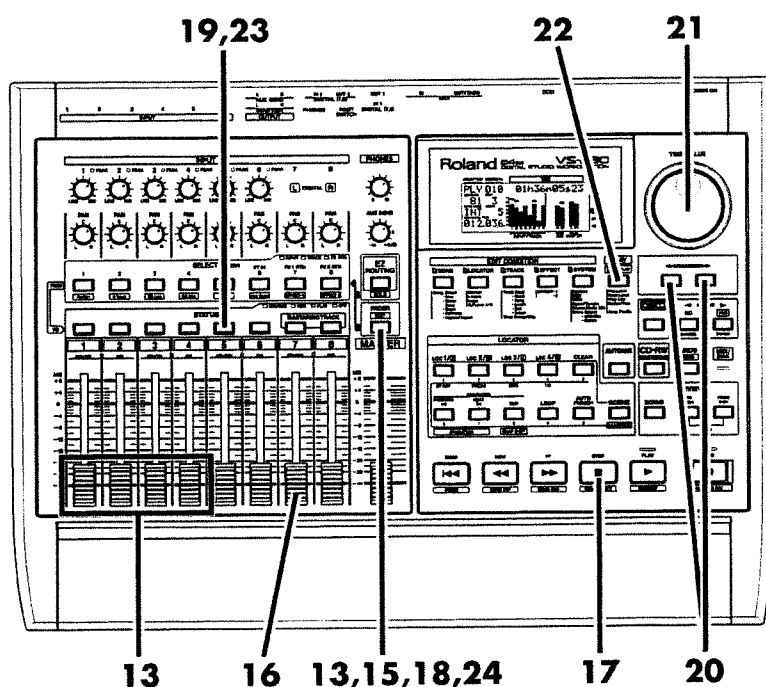
32 Press **[ZERO]**. You will return to the beginning of the song.

33 Hold down **[REC]** and press the **[STATUS]** button of the track that you wish to record. For this example, hold down **[REC]** and press the track 5/6 **[STATUS]** button. **[STATUS]** will blink red.

34 Press **[REC]**. The **[REC]** indicator will blink red.

35 Press **[PLAY]**. The **[PLAY]** indicator will light green, and recording will begin.

36 When you finish recording, press **[STOP]**. The song will stop.

37 Listen to the recorded result. Press **[ZERO]**. You will return to the beginning of the song.

38
Mute tracks 1–4 (so that they will not produce sound). Press the track 1–4 **[STATUS]** buttons so they are not lit.

39
Press **[PLAY]**. The song will be playback. Use channel fader 5 and the master fader to adjust the volume to a comfortable listening level.

Signal Flow (Routing)
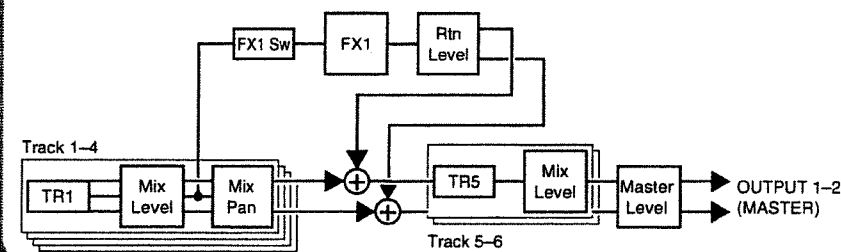
Create Master Data (Mastering Room)

In order to create an original audio CD, you can specify two of the VS-890's tracks as the left track and right track, and write them to a CD-R disc. Let's adjust the balance and effects for each track to create mastering tracks (mixdown/mastering).

Mixing down to the mastering tracks (MASTERING TRACK)

NOTE
Even if you adjust the mixer of apply effects to each track during playback, the results will not be written to the CD-R disc.
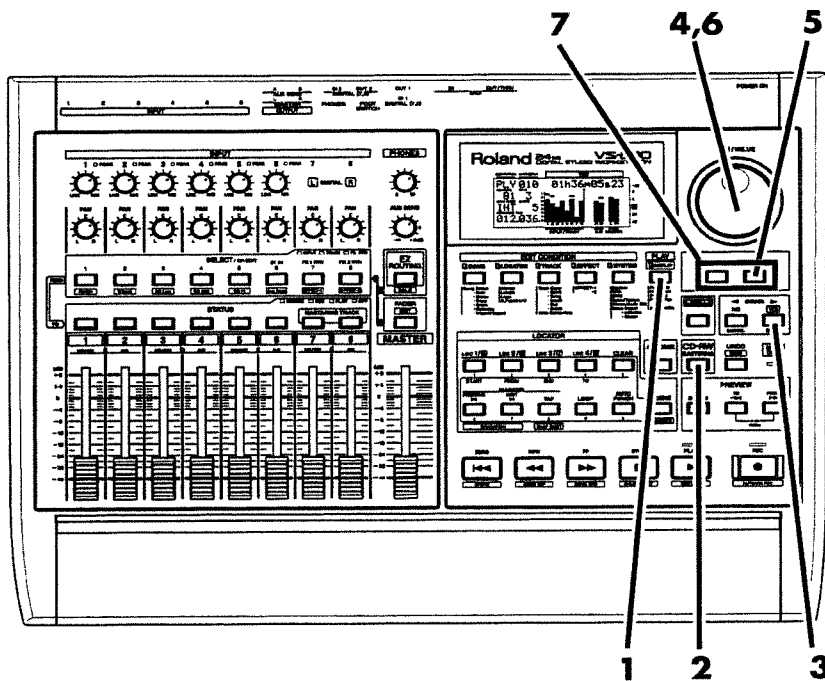
1 Press **[PLAY (DISPLAY)]**.

2 Press **[CD-RW (MATERING)]** several times until "CDR Mastering Room ?" appears in the display.

3 Press **[YES (ENTER)]**. "CDR Mastering Sw =" appears in the display.

4 Rotate the **TIME/VALUE dial** to select "On." The CD-RW indicator blinks, indicating that the Mastering Room is on.

5

Press **PARAMETER [▶▶]**. "MasStatus=" appears in the display.

6

Rotate the **TIME/VALUE dial** to select "Rec."

MasStatus (mastering track status)

Specify the status of the mastering tracks.

Rec: Playback tracks 1–6 while recording them to the mastering tracks (7 and 8).

Play: Playback the mastering tracks (7 and 8). The sound of tracks 1–6 will not be output from the MASTER jacks.

7

As necessary, use **PARAMETER [◀◀]** or **[▶▶]** and the **TIME/VALUE dial** to make the following settings.

V-Track

Select the two V-tracks (L and R) that will be assigned as mastering tracks. When a new song is created, V-track 8 of tracks 7 and 8 (7-8, 8-8) will be assigned as the mastering tracks.

After Rec (after recording)

Specify the time location of the mastering track to which the mixdown will be recorded. When creating an original audio CD, it is usually best to select "ZERO."

ZERO: Place the data starting at 00h00m00s00f

L:0S: Place the data after the end of the last phrase in the mastering tracks.

L:2S: Place the data two seconds after the end of the last phrase in the mastering tracks.

L:4S: Place the data four seconds after the end of the last phrase in the mastering tracks.

Stay: Place the data at the time location at which it was actually recorded.

AutoMarker

If this is turned "On," a track number marker will automatically be assigned to the beginning of the phrase that is mixed down. Normally you will set this "On."

MEMO

When the mastering room is on, **MasStatus (status)** can be switched by pressing **STATUS [7]** or **[8]**.

NOTE

Depending on the After Rec (after recording) setting or on the location relative to other markers, the display may indicate "Can't Set Marker," and the track number marker may not be assigned.

CDR RecMode (CD-R recording mode)

If this is turned "on," the performance data recorded in the mastering tracks will be set to a recording mode of "CDR" regardless of the recording mode of the current song (p. 22). In this case, you can omit the step of creating an image file when writing the song to a CD-R disc.

Off: The mastering tracks are recorded using the recording mode of the present song.

On: The mastering tracks are recorded in CDR mode. This allows you to skip the step of creating an image file when writing to the CD, so it can shorten the write time.

11 10,11,14 9

8 12 13,15

8

Insert the effect (FX1) into the master out. Hold down **[SHIFT]** and press **[EDIT (FADER)]**.

9

Press **PARAMETER [◄◄][►►]** several times until "FX1 Ins Sw =" appears in the display.

10

Rotate the **TIME/VALUE dial** to select "On."

NOTE
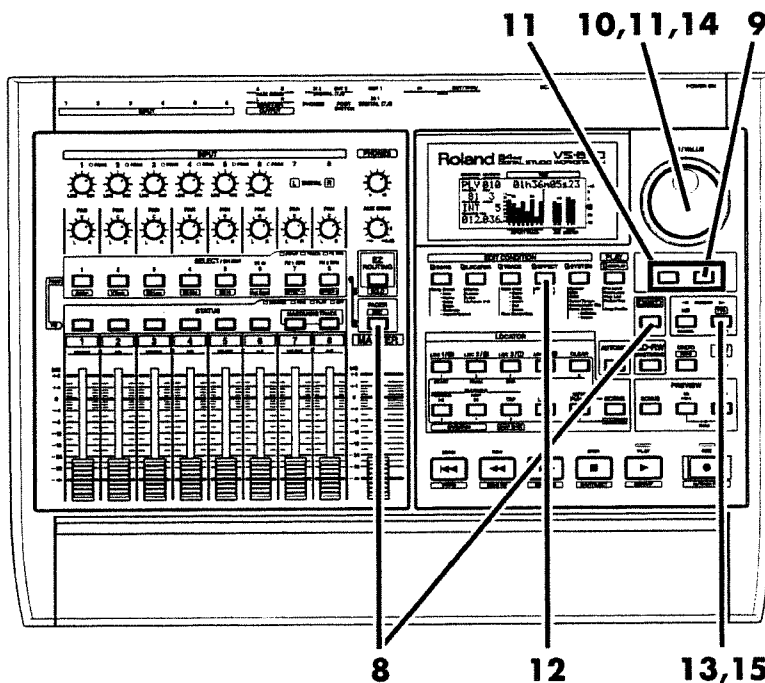
Performance data that was recorded to the mastering tracks with a **CDR RecMode** (CDR recording mode) setting of "On" can be playback only in the mastering room. (It cannot be playback in Play condition.)
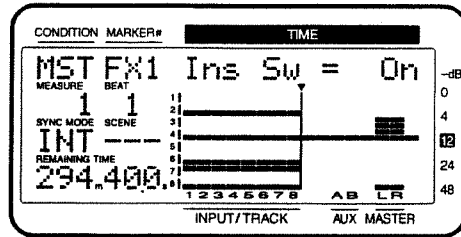
11 As necessary, use **PARAMETER [◄◄]** or **[►►]** and the
TIME/VALUE dial to make the following settings.

FX1 InsSend (FX1 insert send level)

Adjust the volume level of the signal that is sent to the insertion effect (0 to
127). By default, this will be "100."

FX1 InsRtn (FX1 insert return level)

Adjust the volume level of the signal that is output from the insertion effect
(0 to 127). By default, this will be "100."

12 Select effects patch. Press **[EFFECT]** several times until
"EFFECT-1 PRM ?" appears in the display.

13 Press **[YES (ENTER)]**.

14 Rotate the **TIME/VALUE dial** to select the effect you wish to
use. For this example, select an effect such as
"C10=MTK:Mixdown."

15 After selecting the effect, press **[YES (ENTER)]**.
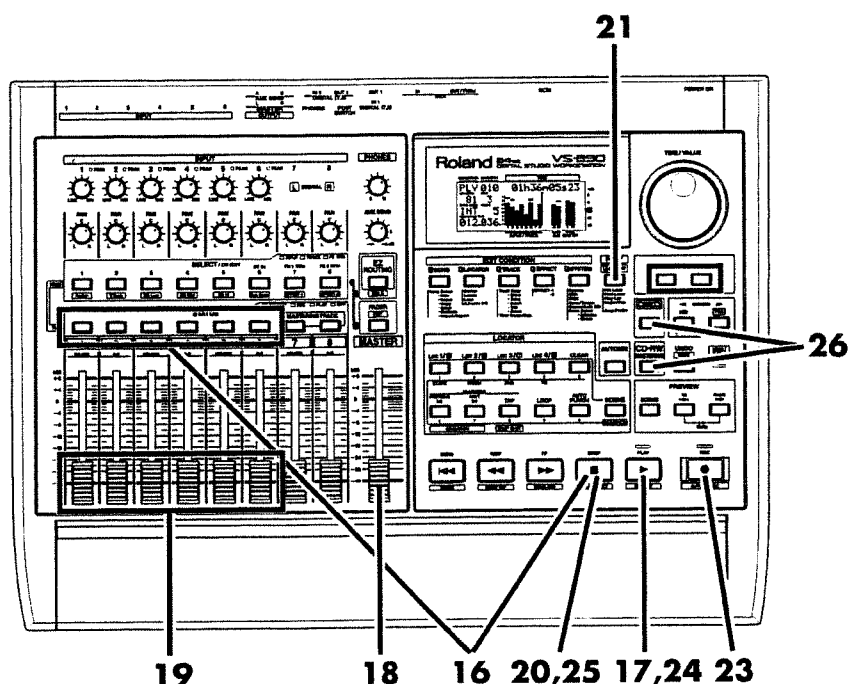
16

Press the **[STATUS]** ([1]-[6]) of the tracks that you wish to mixdown to let the STATUS indicators light green.

17

Press **[PLAY]**. The song will be playback.

18

Adjust the overall volume of the song. Raise and lower the master fader.

19

Adjust the volume balance of each track. At this time, the volume that is being output to the MIX bus (recording level, pan) will be recorded without further change on the mastering tracks. It is best to set the volume as high as possible without causing the volume to distort.

20

When you have finished adjusting the volume, press **[STOP]**. The song will stop.

21

Press **[PLAY (DISPLAY)]** to return to Play condition.

MEMO
Initially, [STATUS (1-6)] are all lit in green. To mute any track you do not want included in the mixdown, press **[STATUS]** for that track (its indicator should be extinguished).

MEMO
The sound that has passed through the **MasterLevel** will be recorded on the mastering tracks. In order to record at the optimal audio quality, you will normally set this at **0dB**.

22

Move to the location at which you wish to begin the mixdown (such as 00h00m00s00f).

23

Press **[REC]**. The REC indicator will light in red.

24

Press **[PLAY]**. The PLAY indicator will light in green, and recording will begin.

25

When you finish recording, press **[STOP]**.

26

Hold down **[SHIFT]** and press **[MASTERING (CD-RW)]**. The mastering room will be turned off (Play condition).

Signal Flow (Routing)

Track 1–6   L   R   Mastering Track

TR1 — Mix Level — Mix Pan — Mix Sw — FX1 — Master Level — TR7 / TR8 ▶ OUTPU ▶ (MASTE
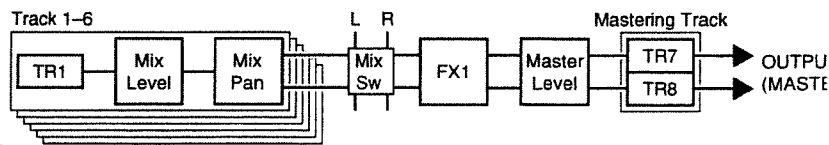
Playing back the mastering tracks

Here's how you can verify the audio that was mixed down to the mastering tracks. Tracks 1–6 will not be playback.
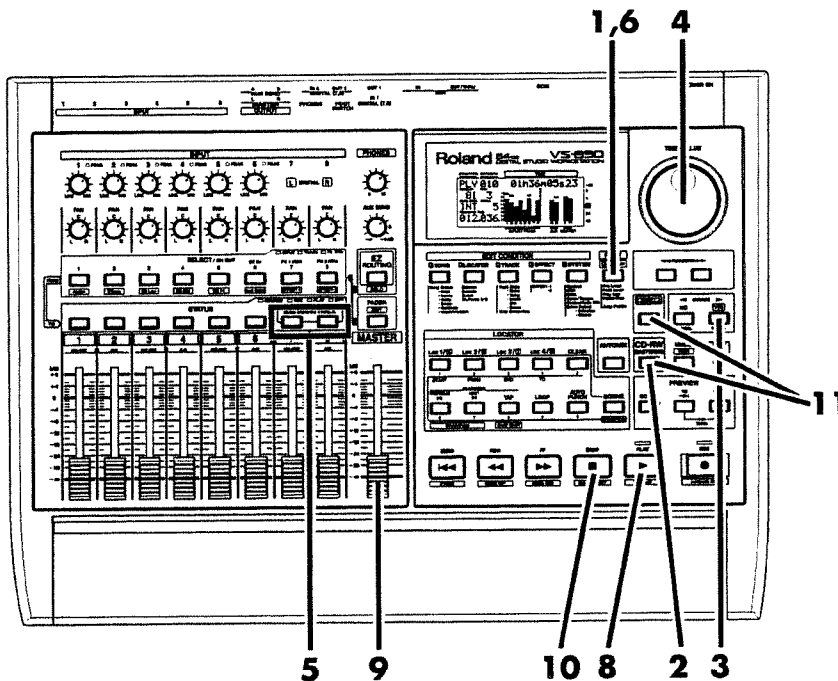
1 Press **[PLAY (DISPLAY)]**.

2 Press **[CD-RW (MASTERING)]** several times until "CDR MASTERING ?" appears in the display.

3 Press **[YES (ENTER)]**. "CDR Mastering Sw =" appears in the display.

4 Rotate the **TIME/VALUE dial** to select "On." The CD-RW indicator blinks, indicating that the Mastering Room is on.

5 Press the **[STATUS]** ([7]-[8]). The STATUS indicators will light green (**MasStatus (mastering track status)**= "Play").

6 Press **[PLAY (DISPLAY)]**.

NOTE
When you turn CDR RecMode (CDR recording mode) "on," the mastering tracks can be playback only using the following procedure. They cannot be playback in Play condition.

7 Move to the location at which you started the mixdown.

8 Press **[PLAY]**. The mastering tracks will be playback.

9 Adjust the volume of the Mastering Track. Raise and lower the master fader.

10 When playback ends, press **[STOP]**.

11 Hold down **[SHIFT]** and press **[MASTERING (CD-RW)]**. The mastering room will be turned off (Play condition).

Signal Flow (Routing)

Track 1–6 | L R | Mastering Track

TR1 → Mix Level → Mix Pan → Mix Sw → ✕ → TR7 → Master Level → OUTPUT 1–2 (MASTER)
✕ → TR8
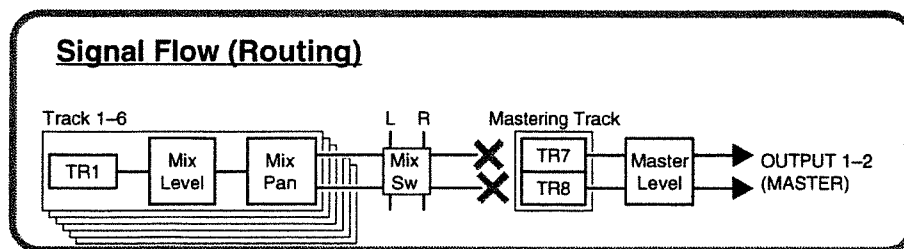
Erasing an Unwanted Portion (Track Cut)

Song data that was track-bounced will be recorded to the CD-R disc starting from "00h00m00s00" of that track and ending at the end of the song (song end). This means that if there are silent portions at the beginning or end of the performance, the capacity of the CD-R disc will be wasted. To avoid this, you can erase unwanted portions.

00h00m00s00

Silent | Playback data | Silent

Before Track Cutting

Playback data

After Track Cutting

Time
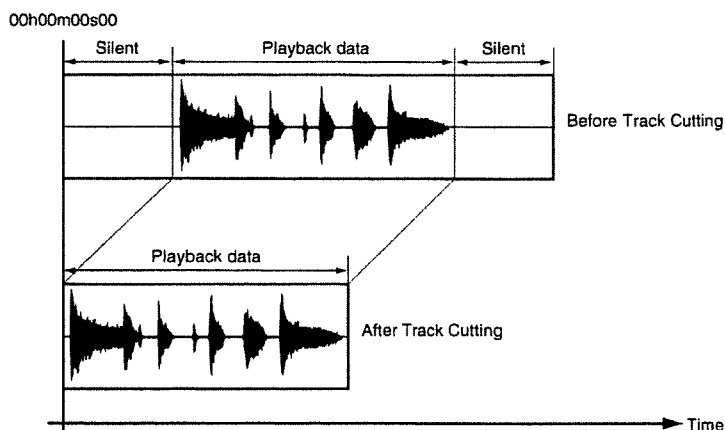
NOTE
When you execute Track Cut, the performance data will appear to have disappeared. However, the performance data that was cut will not actually be erased from the hard disk. This means that even if you execute Track Cut, the available recording time will not increase. If you wish to increase the available recording time, please read **"Deleting Only Unneeded Performance Data (Song Optimize)** (p. 42)

Selecting the Portion that will be Written to the CD-R Disc

To simplify the task of assembling the track cuts, you can select a desired area, and register it in the Locator function. For details on registering/deleting Locator entries, refer to "Storing a Time Location" (Owner's Manual p. 39).
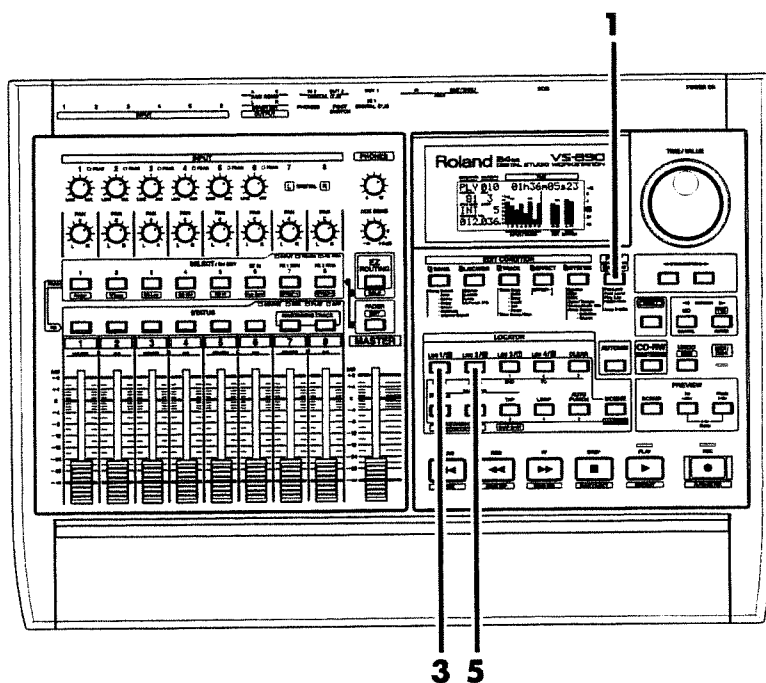
1 Press **[PLAY (DISPLAY)]**.

2 Move to the time location where you wish to begin writing.

3 Press **LOCATOR[1]**. The time will be registered in locator 1.

4 Move to the time location where you wish to stop writing.

5 Press **LOCATOR[2]**. The time will be registered in locator 2.

NOTE

For details refer to "Previewing Techniques (Preview)" (Owner's Manual p. 44).

Deleting an Unwanted Portion At the End of the Song
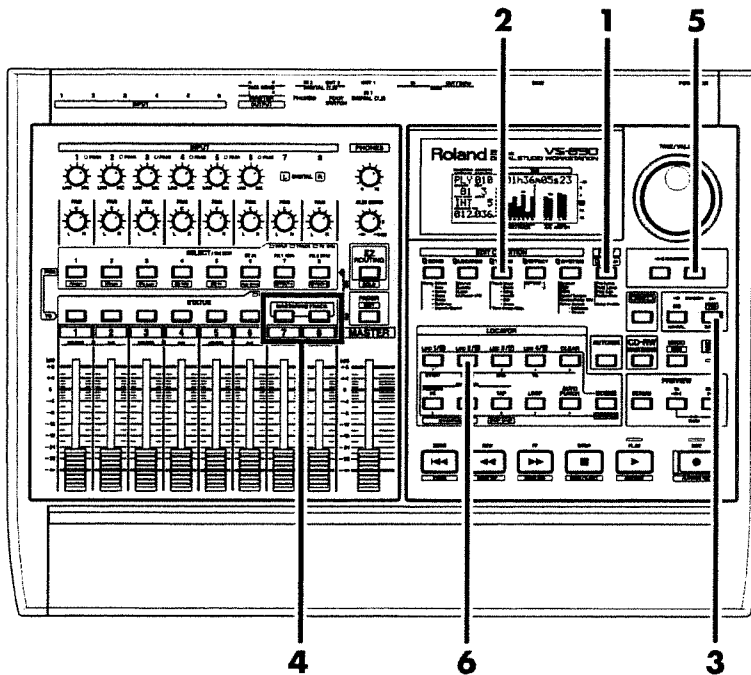
1

Press **[PLAY (DISPLAY)]**.

2

Press **[TRACK]** several times until "TRK Track Cut ?" appears in the display.

3

Press **[YES (ENTER)]**. "TRK Cut Tr.=?-?" appears in the display.

4

Press the **[STATUS]** (here, [7] or [8]) for the track(s) on which you want to carry out Track Cut. The STATUS indicator will blink red.

5

Press **[►►]** several times until "TRK St=" appears in the display.

6

Specify the starting time of the segment to be cut. Press **LOCATOR[2]**.

MEMO
At this time, the function of **STATUS** will be to select the tracks for track editing.

MEMO
At this time, the function of **LOCATOR** will be to recall the locator time ([2]=the time where writing to the CD-R disc ended).
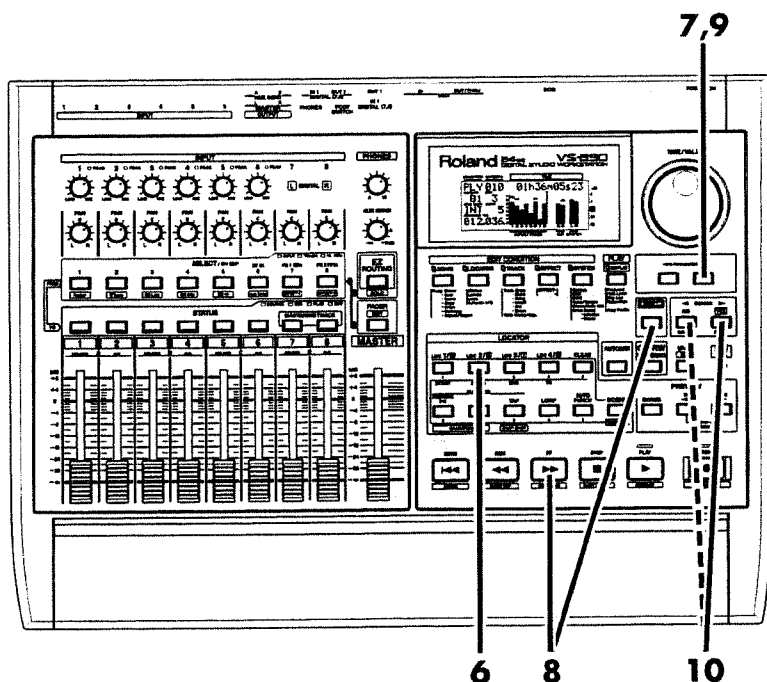
7

Press [►►] several times until "TRK End=" appears in the display.

8

Specify the ending time of the segment to be cut. Hold down [SHIFT] and press [SONG END (FF)].

9

Press [►►]. "TRK Track Cut OK ?" appears in the display.

10

Press [YES (ENTER)]. This executes Track Cut. If you wish to cancel, press [NO (CANCEL)].

11

When the cut is completed correctly, "Complete" appears in the display, and return to Play condition.

MEMO

By accessing the Play List display (hold down [SHIFT] and press [DISPLAY (PLAY)] several times), you can check the area to be cut.

Deleting an Unwanted Portion
At the Beginning of the Song
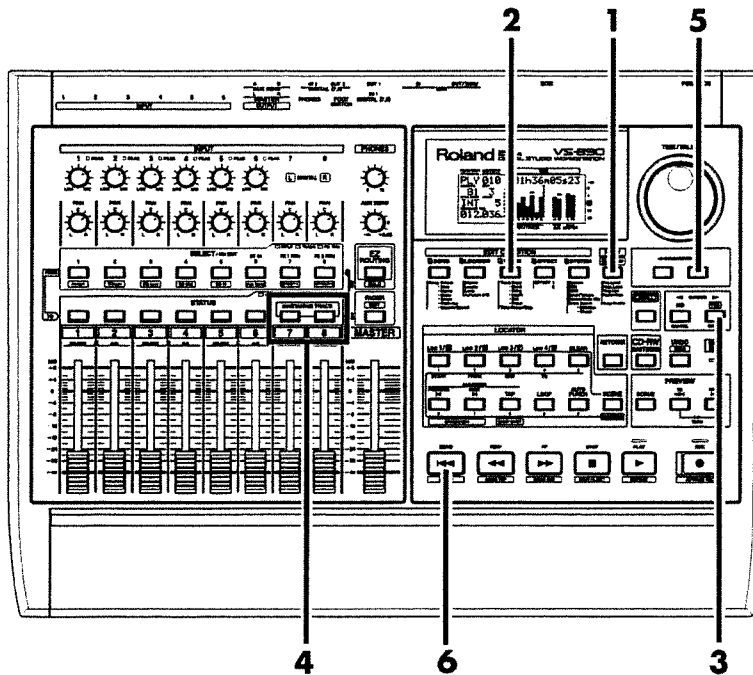
1 Press **[PLAY (DISPLAY)]**.

2 Press **[TRACK]** several times until "TRK Track Cut ?" appears in the display.

3 Press **[YES (ENTER)]**. "TRK Cut Tr.=?-?" appears in the display.

4 Press the **[STATUS]** (here, [7] or [8]) for the track(s) on which you want to carry out Track Cut. The STATUS indicator will blink red.

5 Press **[►►]** several times until "TRK St=" appears in the display.

6 Specify the starting time of the segment to be cut. Press **[ZERO]**.

MEMO
At this time, the function of **STATUS** will be to select the tracks for track editing.

Add Finishing Touches to Your Song
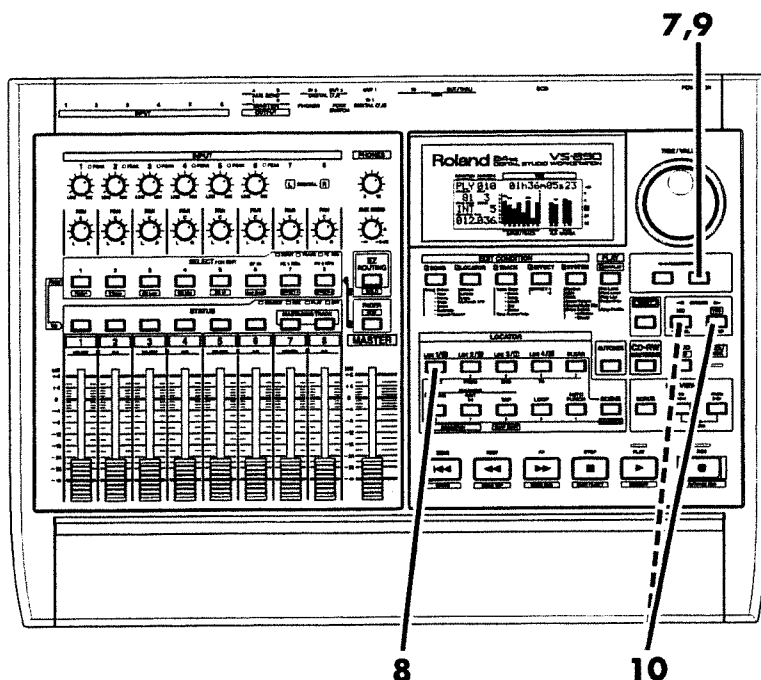
7,9

8   10

7 Press [►►] several times until "TRK End=" appears in the display.

8 Specify the ending time of the segment to be cut. Press **LOCATOR[1]**.

9 Press [►►]. "TRK Track Cut OK ?" appears in the display.

10 Press **[YES (ENTER)]**. This executes Track Cut. If you wish to cancel, press **[NO (CANCEL)]**.

11 When the cut is completed correctly, "Complete" appears in the display, and return to Play condition.

MEMO
At this time, the function of **LOCATOR** will be to recall the locator time ([1]=the time where writing to the CD-R disc started).

MEMO
By accessing the Play List display (hold down **[SHIFT]** and press **[DISPLAY (PLAY)]** several times), you can check the area to be cut.

Adding Track Number Markers

By placing two or more songs one after the other in the same track, you can write these songs consecutively to the CD-R disc. In this case, you can place markers between songs to function as track numbers, just as on a pre-recorded audio CD. These track numbers will be written to the audio CD that you record on your CD-R drive.

2
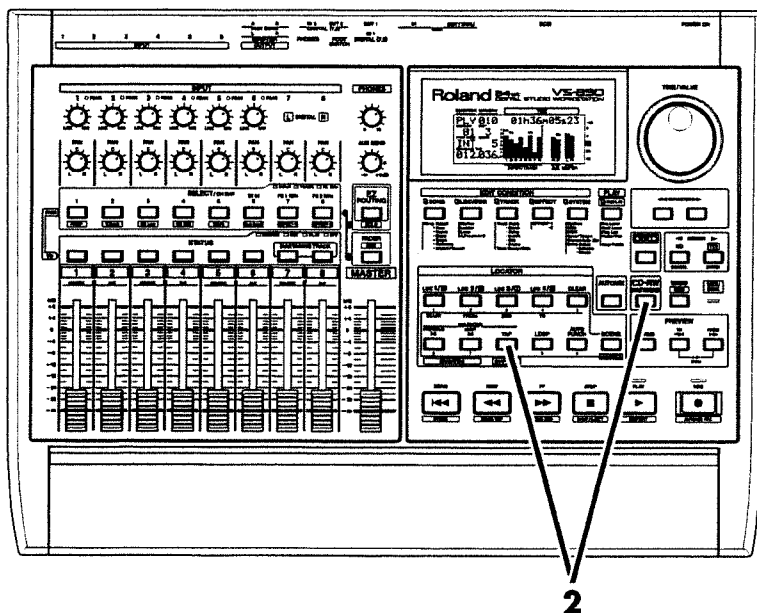
1

While listening to the song, move to the location where you wish to place a track number. You will probably find it convenient to use the Preview function or the Scrub function (Owner's Manual p. 43).

2

Hold down **[CD-RW (MASTERING)]** and press **[TAP]**. A track number marker will be placed at the current time location.

The first track number marker is created automatically at the beginning of the song (00h00m00s00). Audio CD specifications require that a song be at least four seconds in duration. For this reason, track number markers must be placed four seconds apart. If you attempt to place a marker within four seconds of another marker, "Can't Set Marker" will be displayed and the marker will not be placed.

Audio CD standards allow up to 99 songs to be stored on one disc. Furthermore, even if no track number marker is set at the beginning of the song, it is still used for the beginning of the first song. Thus, you can set up to 98 markers as track numbers.
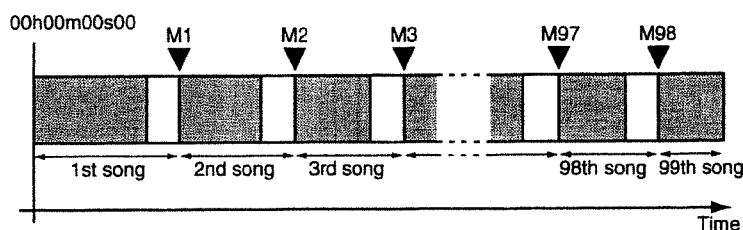
Assigning Track Numbers

When you write an audio CD, a track number will automatically be assigned to "00h00m00s00f." For this reason, the track number markers and the actual song order will be as follows.
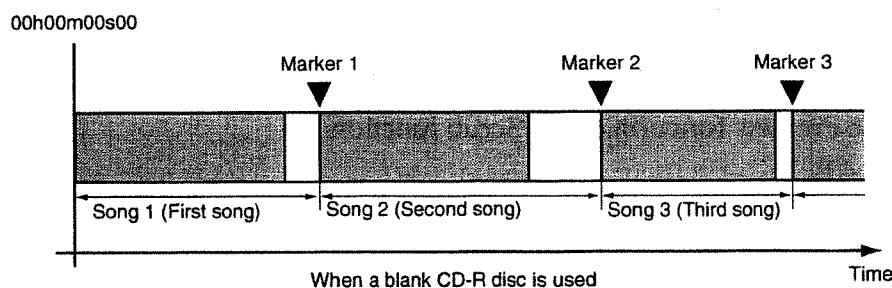
If you write additional songs onto a CD-R disc to which songs have already been written, track numbers will be assigned in sequence to follow the previously-written songs. For example if five songs have already been written to the CD-R disc, the next song you write will be song number six.
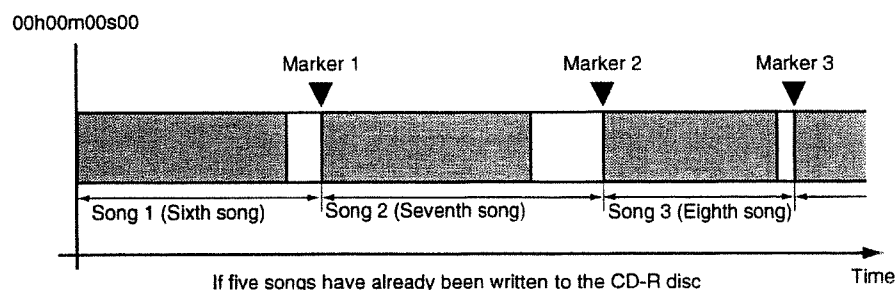
Creating an Original Audio CD (CD-R Write)

This chapter explains how you can create an original audio CD by recording two tracks (stereo tracks) from the VS-890 to the Roland CD recorder.

Connecting the CD-RW Drive

A CD-R/CD-RW drive allows you to use CD-R or CD-RW discs to create audio CDs. CD-R discs are the preferred format for audio CDs.

1 Make sure that the power of all devices are turned off.

2 Use a SCSI cable to connect the Roland CD recorder.

3 Turn on the power of the Roland CD recorder.

4 Turn on the power of the VS-890.

CD-RW (Appendices p. 12)
SCSI (Appendices p. 13)

NOTE

In order to create an original audio CD, you will need the Roland CD recorder (sold separately).

Creating an Audio CD (CD-R Write)

When this procedure is performed, the VS-890 will first create a CD-R image file on its internal hard disk, and will then write that image file to the CD-R disc. For this reason, there must be sufficient free space on the internal hard disk to create this image file.
All unused capacity of the hard disk will be allocated to the image file, regardless of the partition settings. The image file will be deleted automatically after it has been written to the CD-R disc.

MEMO

Because image data is not created in situations involving specified tracks of a song when the recording mode is CDR mode, or V tracks recorded on a mastering track in CDR mode, the time it takes to write to the CD-R disc can be reduced.

Creating an Original Audio CD (CD-R Write)

2   7,8   4,7,8

3   5
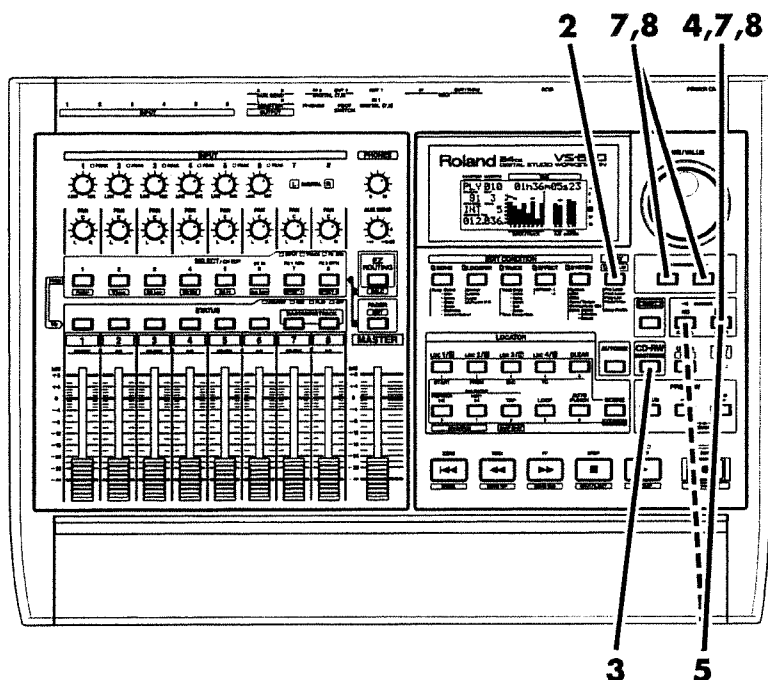
1

Insert an unused CD-R disc into the Roland CD recorder.

2

Press **[PLAY (DISPLAY)]**.

3

Press **[CD-RW (MASTERING)]** several times until "CDR CD-R Write ?" appears in the display.

4

Press **[YES (ENTER)]**. "STORE Current ?" appears in the display.

5

If you wish to save the current song, press **[YES (ENTER)]**; if not, press **[NO (CANCEL)]**. **If you have selected a protected song, then press [NO (CANCEL)]**.

6

The VS-890 displays the SCSI ID number of the connected CD recorder for a set time.

NOTE

Audio CD's created using a CD-RW disc cannot be played (heard) on a conventional CD player. Please use a CD-R disc for this example.

MEMO

When a non-VS-890 type of song (such as one in the VS-880 or VS-880EX format) is selected as the current song, "STORE Current" will not be displayed.

NOTE

The contents of the protected songs cannot be changed or overwritten (Song Protect; p. 66). You cannot save operation with the protected songs. This means if you press **[YES (ENTER)]** at Step 5 when a protected song is selected, the message "SONG Protected" will appear, and the procedure cannot be continued.

7

Then "Disc at Once ?" or "Track at Once ?" appears in the display. Press **PARAMETER [◄◄]** or **[►►]** to select how the data will be written, and press **[YES (ENTER)]**.

Disc at Once

The song data and the track number markers attached to the song data will be written to the CD-R disc without change. However, additional song data cannot be added later to a CD-R disc that was written using Disc at Once. (It will be in the same condition as if Finalize had been performed.)

Track at Once

Two seconds of silence will automatically be written to the CD-R disc before each track number marker attached to the song data. (This is the same condition as when additional songs are written to the disc later.) When Track at Once is used for writing to a CD-R disc, you can continue writing additional song data up until Finalize is executed.

8

If you select "Track at Once," press **PARAMETER [◄◄]** or **[►►]** to select whether or not the finalize is carried out, press **[YES (ENTER)]**. A TOC (Table Of Contents) will be written so that the audio CD created by the VS-890 can be playback on a standard CD player. It is not possible to write additional data to an audio CD that has been finalized.

Write+Finalize ?:   Write the song, and then finalize.
Write w/o Fin. ?:   Write only the song, and do not finalize.
Finalize ?:   Only finalize without writing the song. Select this if you have inserted a CD-R disc to which you have already written songs, but which has not yet been finalized.

> ### Finalize
>
> "Finalize" means to write the TOC (Table Of Contents) to the audio CD created by the VS-890.
> If a CD-R disc has not been finalized, additional songs can be written to the unused area of that disc. However, such a disc cannot be playback on a conventional CD player. An unfinalized CD-R disc can be auditioned using the VS-890's CD Player function.
> A finalized CD-R disc can be playback on a conventional CD player in the same way as a commercial pre-recorded audio CD. However it will no longer be possible to record additional songs, even if there is unused space on that disc.

MEMO

For example, if you have assigned track numbers to a medley of songs, Disc at Once would be the appropriate choice. This is because Track at Once would add approximately two seconds of silence, which would cause the playback to sound fragmented.

NOTE

If you use the CD-RW disc, you cannot choose "Track at Once" upon writing.

?
TOC (Appendices; "Glossary" p. 13)

?
Finalize (Appendices; "Glossary" p. 12)

9   9,11 10,12

18   14,16,17 13,15
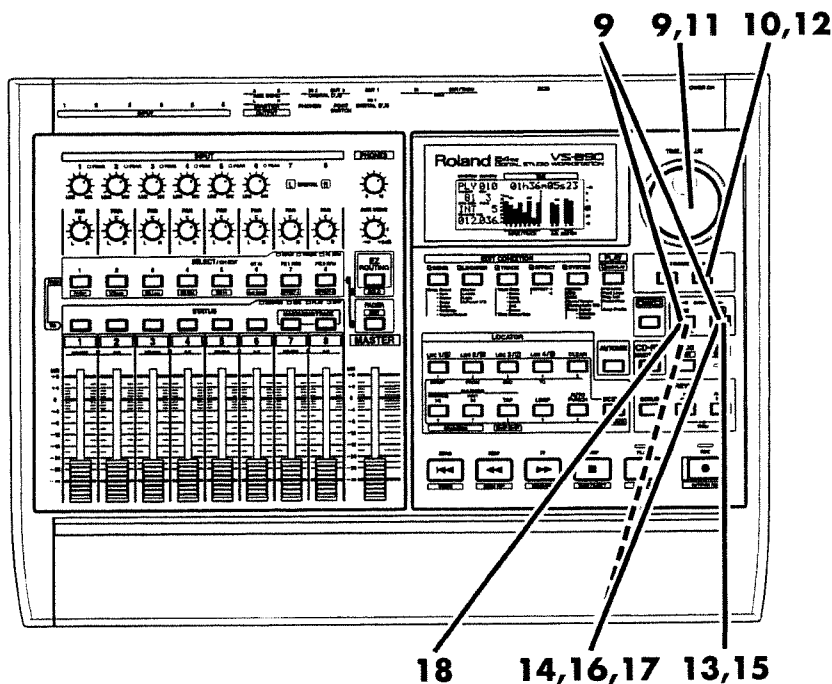
9

Use [◄] or [►] and **TIME/VALUE dial** to select the tracks on the CD-R disc to which you want the song written.

Disk space occupied by a song when written to a disc (27MB)

Writing source tracks (left/right)
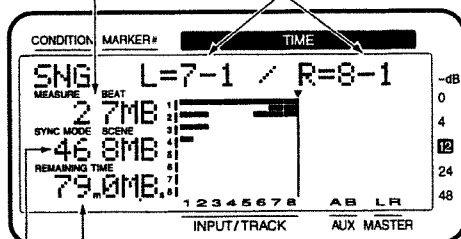
CD-R disc free space (790MB)

Internal hard disk free space (468MB)

10

Press **PARAMETER [►►]**. "CD Speed" appears in the display.

11

Use **TIME/VALUE dial** to select the speed at which the song will be written to the CD-R disc.

```
CONDITION  MARKER#              TIME
CDR CD Speed=      x 2  -dB
MEASURE    BEAT
```

CD Speed

x1:   The song will be written at normal speed. This will provide higher reliability.

x2:   The song will be written at double speed.

x4:   The song will be written at quad speed.

12 Press **PARAMETER [►►]**. A confirmation message appears in the display.

13 Press **[YES (ENTER)]**. "CDR CD Track No. OK?" is displayed.

14 Press **[YES (ENTER)]**. If you have not placed the track numbers marker yet, press **[NO (CANCEL)]**. You will return to step 3.

15 Press **[YES (ENTER)]**. "Obey Copyrights ?" is displayed.

16 Carefully read the License Agreement (detailed on the back cover of this manual); if you accept the agreements, press **[YES (ENTER)]**. If you do not accept the agreements, press **[NO (CANCEL)]**. You will return to step 3.

17 CD-R Write is completed correctly, "Write Another ?" appears in the display and CD-R disc is ejected. When the want to write the same song information to another CD-R disc, insert another disc in the CD recorder and press **[YES (ENTER)]**. Repeat Steps 12-17. Press **[NO (CANCEL)]** to return to Play condition.

18 Press **[NO (CANCEL)]**. This returns you to the status at Step 3. Pressing **[CD-RW]** also returns you to Step 3.

NOTE

With some CD-R discs, the data may not be written correctly if you select "x2." In this case, select "x1." However, if a CD-RW disc is inserted into the CD recorder, select "x2."

MEMO

If no performance data has been recorded on the tracks to be written, the display will indicate "No Data to Write." Press **[YES (ENTER)]** to return to step 3.

Auditioning (Test Listening) Songs Written to CDs (CD Player Function)

You cannot playback CD-RW discs or CD-R discs that have just had written songs to them with regular commercial CD players. To listen to songs that have been just written to a disc in order to check them, carry out the following operation.
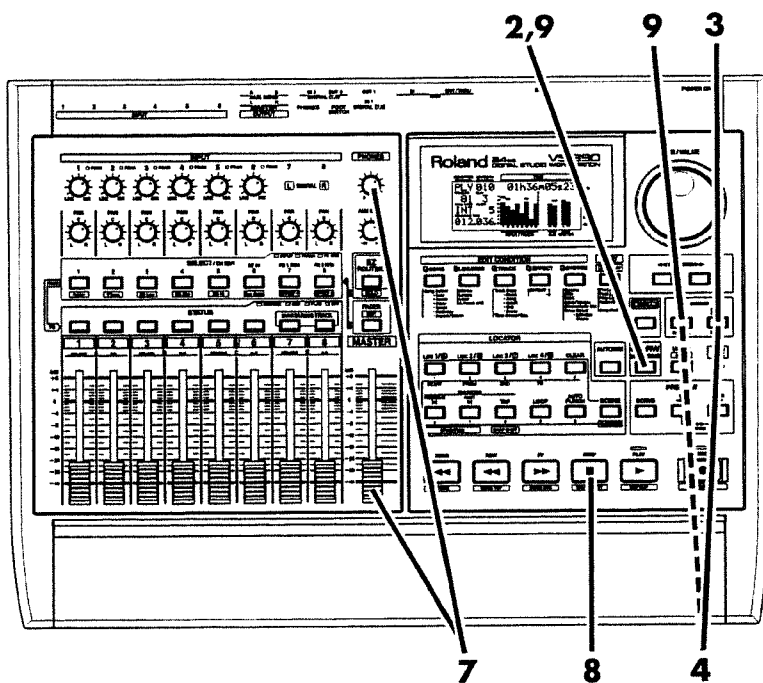
1 Insert the CD-R disc or commercial CD software into the CD recorder.

2 Press **[CD-RW (MASTERING)]** until "CDR CD Player ?" appears in the display.

3 Press **[YES (ENTER)]**. "STORE Current ?" (Store the current song ?) appears in the display.

4 If you wish to save the current song, press **[YES (ENTER)]**; if not, press **[NO (CANCEL)]**. **If you have selected a protected song, then press [NO (CANCEL)].**

5

The VS-890 displays the SCSI ID number of the connected CD recorder for a set time, and the CD-R disc information is then displayed.

6

Only the following buttons, knobs, and faders effect the sound. Try listening to the contents of the disc.

[ZERO]: Move to the beginning of the first song.

[◄◄ (REW)]: Rewind as long as you continue to press the button.

[►► (FF)]: Fast-forward as long as you continue to press the button.

[STOP]: Stop.

[PLAY]: Begin playback from the current location.

[PREVIOUS (MARKER)]: Return to the previous song.

[NEXT (MARKER)]: Advance to the next song.

Master fader: Adjust the overall volume.

PHONES knob: Adjust the volume of the headphones.

NOTE

When listening to discs that have not been finalized, the last approximately 0.5 seconds of the song cannot be playback Finalizing makes this portion audible.

Listening possible   Listening not possible (approx. 0.5 sec.)

Before Finalizing

▼

Listening possible

After Finalizing
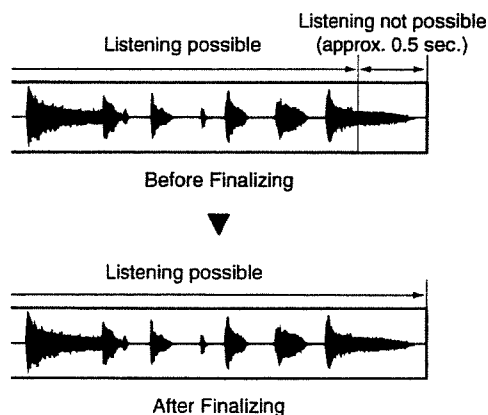
7

Use the master fader and phones knob to adjust the volume to a comfortable level.

8

When you are finished playing back, press **[STOP]**.

9

Press **[NO (CANCEL)]**. This returns you to the status at Step 2. Pressing **[CD-RW (MASTERING)]** also returns you to Step 2.

NOTE

Buttons and knob response may be slow, but this does not indicate any malfunction. For example, expect to wait about five seconds after pressing [PLAY] or [◄◄] before you hear sound.

NOTE

[◄◄ (REW)],
[►► (FF)] buttons active when be stopping.

NOTE

Transport control buttons are used in controlling the CD control. They are not controls for the VS-890's songs. Furthermore, the content of the CD currently listened to cannot be recorded by the VS-890.

?

Finalize (Appendices; "Glossary" p. 12)

Saving Songs to CD-RW Discs

You can save song data stored on the VS-890's hard disk to CD-RW discs. This procedure is called backup. Conversely, the process of loading backed up song data onto the internal hard disk is referred to as recover. Besides all V-track performance data, backed up data also includes Locator, Marker, and Scene settings made in the songs.
If you have finished writing a song to an audio CD and have no immediate need for the data, you can back up the data and then initialize the hard disk in order to free up more recording time.

Backup the song (CD-R backup)
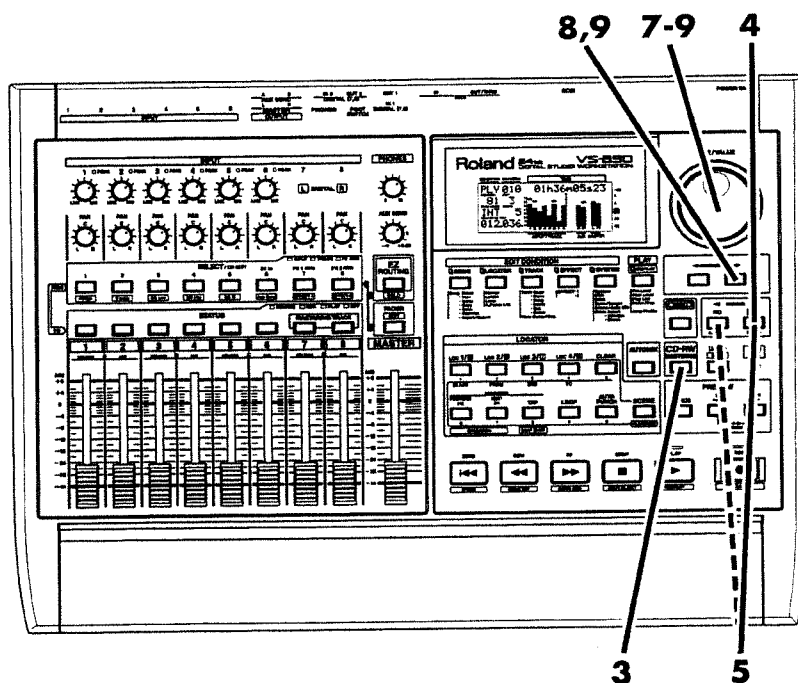
1 Select the disk (internal IDE hard disk) containing the source song you want to back up as the current drive.

2 Place a CD-RW disc in the Roland CD recorder.

3 Press **[CD-RW (MASTERING)]** several times until "CD-R Backup ?" appears in the display.

4 Press **[YES (ENTER)]**. "STORE Current?" (Store the current song?) appears in the display.

NOTE
It is impossible to save any additional song data to the CD-RW discs that already have songs backed up on them. When you back up onto the CD-RW discs, existing contents should be totally erased before the new contents are saved.

MEMO
When a non-VS-890 type of song (such as one in the VS-880 or VS-880EX format) is selected as the current song, "STORE Current" will not be displayed.

5

If you wish to save the current song, press **[YES (ENTER)]**; if not, then press **[NO (CANCEL)]**. If you have selected a protected song, then press **[NO (CANCEL)]**.
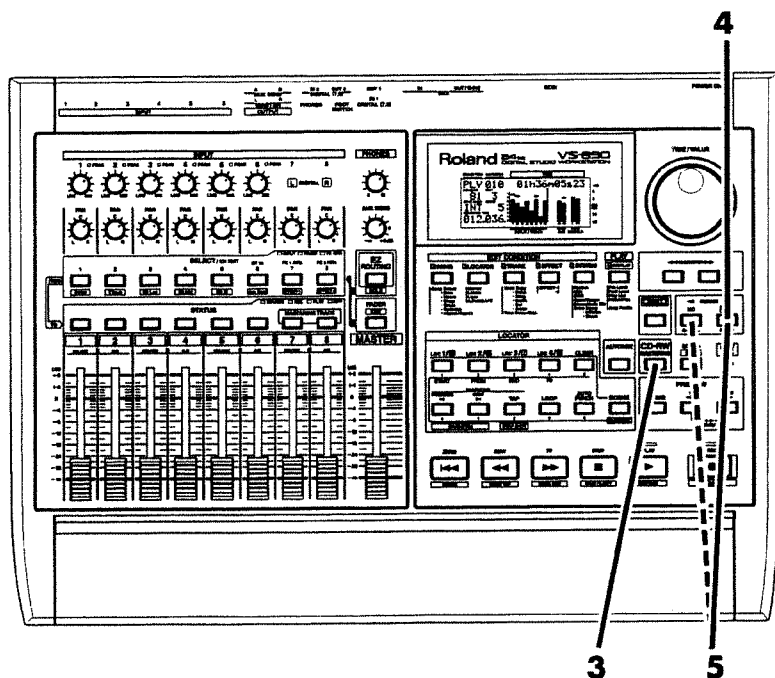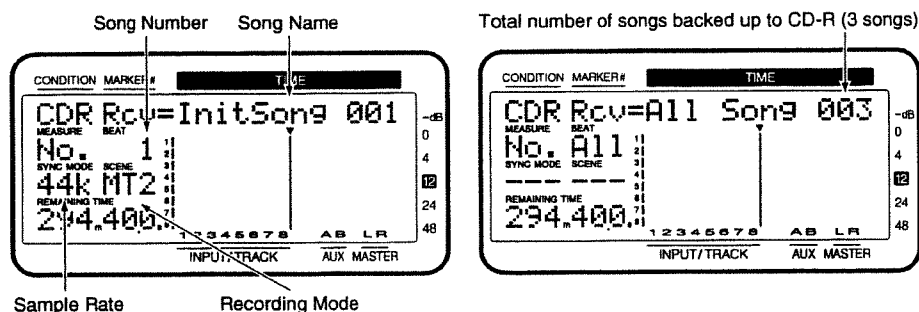
6

The VS-890 displays the SCSI ID number of the connected CD recorder for a set time, then "CDR Bak=" appears in the display.

7

Use the **TIME/VALUE dial** to select the song on the CD-R disc to which you wish the song saved, then press **PARAMETER [►►]**. To backup all songs from the current drive, select "All."

Song Number   Song Name   Total number of songs in the current drive (3 songs)

Sample Rate   Recording Mode
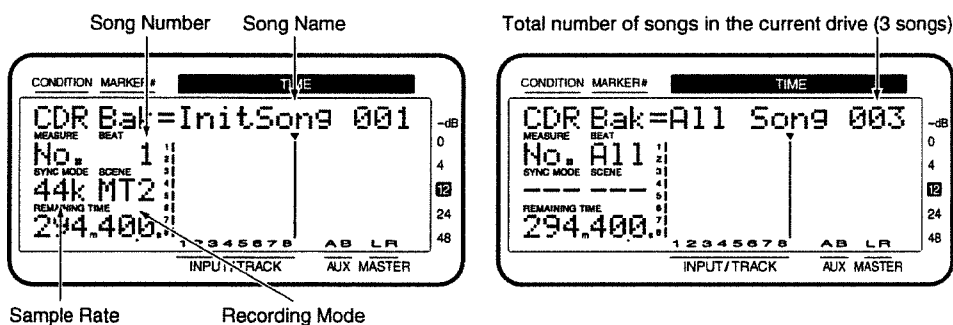
8

"+Verify=" appears in the display. Rotate the **TIME/VALUE dial** to select "On" or "Off," and press **PARAMETER [►►]**.
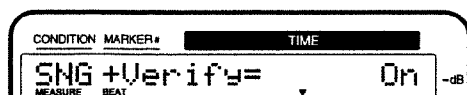
+Verify

If this is turned "On," verification will be performed after the song data has been backed up, to check whether or not the data was saved correctly.

9

"CD Speed=" appears in the display. Rotate the **TIME/VALUE dial** to select the backup speed (x1, x2 and x4).
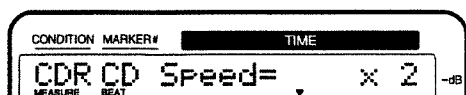
NOTE
The contents of the protected songs cannot be changed or overwritten (Song Protect; p. 66). You cannot save operation with the protected songs. This means if you press **[YES (ENTER)]** at Step 5 when a protected song is selected, the message "SONG Protected" will appear, and the procedure cannot be continued.
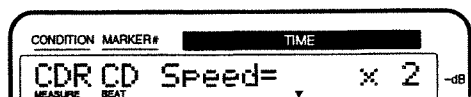
NOTE
If as a result of the "+Verify" operation you receive a warning that the song data was not written correctly, please make a backup on another disc.

MEMO
When backing up to a CD-R, we recommend that you also execute +Verify to check whether the data was backed up correctly. Since +Verify checks the entire CD-RW disc, the operation will take a certain amount of time.

MEMO
Depending on the disc, it may not be possible to back up reliably to a CD-R disc with a setting of "x4" or "x2." In such cases, select "x1." Also, if you insert a CD-RW disc into a CD-RW drive, select "x2."

10-12
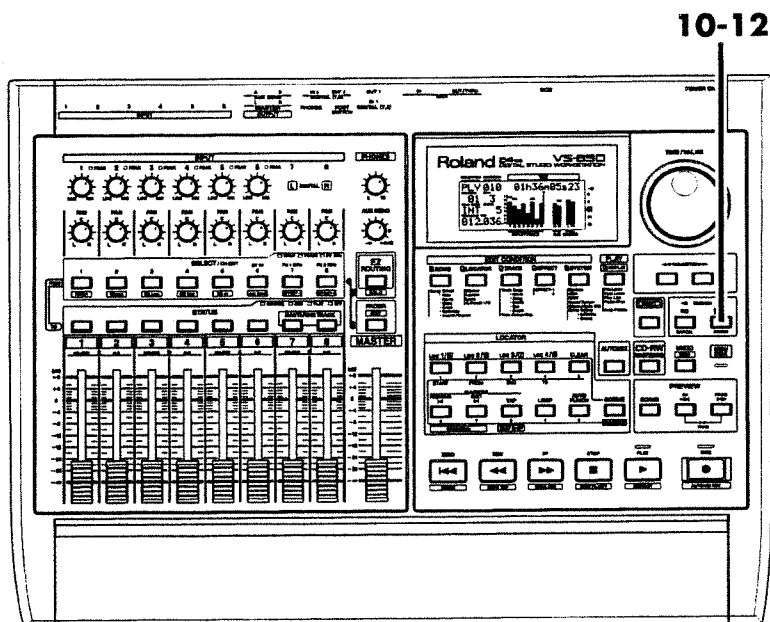
10 Press **[YES (ENTER)]**. CD-R backup function will begin.

11 If the song holds a large amount of data, and cannot be contained on a single CD-RW disc, the disc is ejected, and the message "Insert Blank" appears in the display. Insert the next CD-RW disc and press **[YES (ENTER)]**. At this time, we recommend that you write the disc numbers on the labels so that you can keep track of the order in which the discs were inserted into the drive.

12 When copying over multiple CD-RW discs, "Insert Disc #" (# indicates the number in the order of insertion) appears in the display. Insert each of the discs once more in the proper order and press **[YES (ENTER)]**.

13 When the CD-R backup procedure is finished, return to Play condition.

MEMO
If you attempt to write to a new CD-RW disc that has already undergone logical formatting, the message "Finalized CD!" may appear. Should this occur, first press **[YES (ENTER)]**. Then, you will need to erase the CD-RW disc before it can be used.

Loading Songs From CD-RW Discs
(CD-R recover)
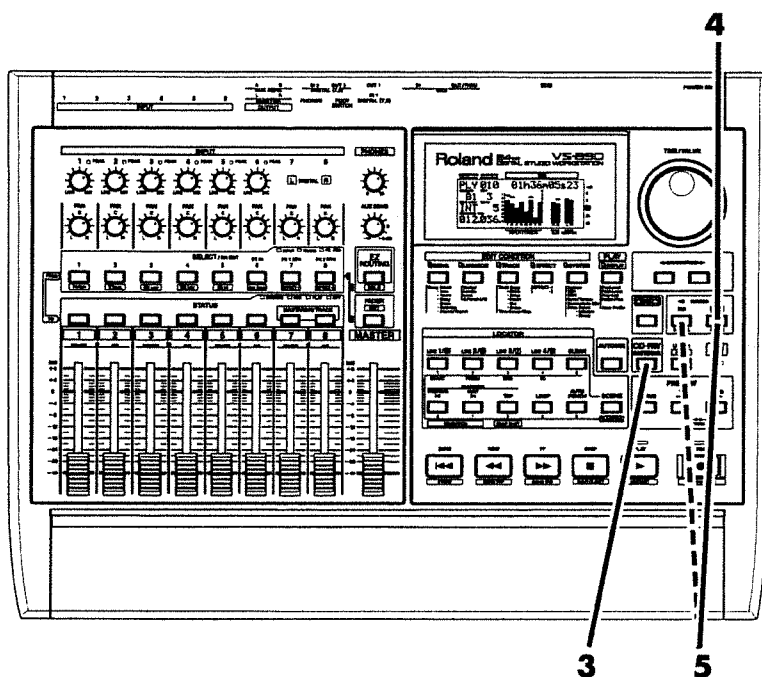
1
Select the disk (internal IDE hard disk) containing the song you want to load as the current drive.

2
Place the CD-RW disc to which the song data has been backed up in the Roland CD recorder.

3
Press **[CD-RW (MASTERING)]** several times until "CD-R Recover ?" appears in the display.

4
Press **[YES (ENTER)]**. "STORE Current?" (Store the current song?) appears in the display.

5
If you wish to save the current song, press **[YES (ENTER)]**; if not, then press **[NO (CANCEL)]**. If you have selected a protected song, then press **[NO (CANCEL)]**.

MEMO
When a non-VS-890 type of song (such as one in the VS-880 or VS-880EX format) is selected as the current song, "STORE Current" will not be displayed.

NOTE
The contents of the protected songs cannot be changed or overwritten (Song Protect; p. 66). You cannot save operation with the protected songs. This means if you press **[YES (ENTER)]** at Step 5 when a protected song is selected, the message "SONG Protected" will appear, and the procedure cannot be continued.

4

3   5

6

"CDR Rcv=" appears in the display. Use the **TIME/VALUE dial** to select the song on the CD-RW disc to which you wish the song load, then press **PARAMETER [▶▶]**. To recover all songs from the backuped CD-RW disc, select "All."

Song Number   Song Name   Total number of songs backed up to CD-R (3 songs)

Sample Rate   Recording Mode

7

"CD Speed=" appears in the display. Rotate the **TIME/VALUE dial** to select the recover speed (x1, x4, x8 and x20).

8

Press **[YES (ENTER)]**.

9

If you selected "All" in step 6, the display will indicate "INIT ***:* OK ?" (OK to initialize the disk drive?). "***:*" is the ID number and partition number of the recover destination disk drive. For example when recovering to partition 0 of the internal hard disk drive, the display would indicate "IDE:0."

10

If you wish to initialize the current drive and then recover, press **[YES (ENTER)]**. If at this point you press **[YES (ENTER)]**, all songs saved on the internal hard disk will be lost. If you decide not to initialize, press **[NO (CANCEL)]**. Normally you should press **[NO (CANCEL)]**.

11

Execute the load. When over multiple discs, the disc is ejected, "Insert Disc #" (# indicates the number in the order of insertion) appears in the display. Insert the next disc and press **[YES (ENTER)]**.

12

When the CD-R recover procedure is finished, return to Play condition.

How to Erase the Data in the CD-RW Disc

It is impossible to write audio data to the CD-RW discs in which the song data is saved. To write audio data to the finalized CD-RW discs, erase the existing data as follows.
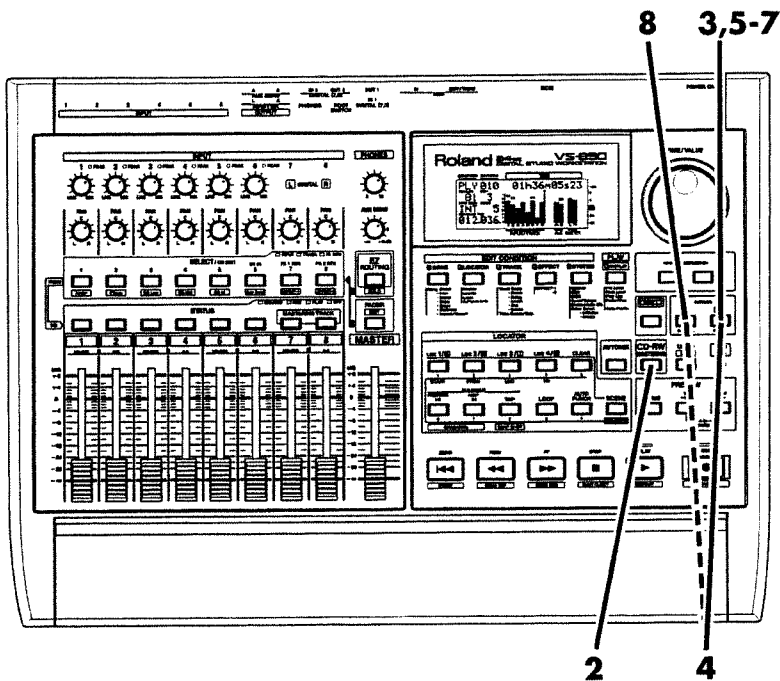
1

Place the CD-RW disc which includes the data you wish to erase in the CD recorder.

2

Press **[CD-RW (MASTERING)]** several times until "CD-R Backup?" appears in the display.

3

Press **[YES (ENTER)]** and "STORE Current?" appears.

4

Press **[YES (ENTER)]** to save the current song, or **[NO (CANCEL)]** if not. If the current song is the protected song, press **[NO (CANCEL)]**. "CDR Bak=" appears in the display.

MEMO

When a non-VS-890 type of song (such as one in the VS-880 or VS-880EX format) is selected as the current song, "STORE Current" will not be displayed.
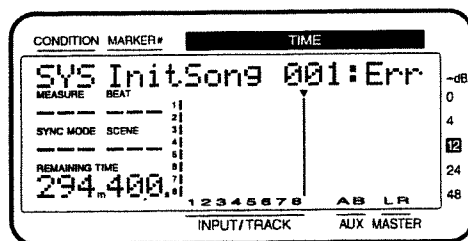
NOTE

The contents of the protected songs cannot be changed or overwritten (Song Protect; p. 66). You cannot save operation with the protected songs. This means if you press **[YES (ENTER)]** at Step 4 when a protected song is selected, the message "SONG Protected" will appear, and the procedure cannot be continued.

5

Press **[YES (ENTER)]** and "Finalized CD!" or "Not Blank CD!" appears.

6

Press **[YES (ENTER)]** and "CD-RW Erase?" appears.

7

Press **[YES (ENTER)]** and "CD-RW Erasing..." appears and the contents in the CD-RW disc is erased.

8

"Continue?" appears and press **[NO (CANCEL)]**.

9

"Function Failed!" and "Press [ENTER]" appeared alternately. Press **[YES (ENTER)]** and CD-RW disc is ejected.

Appendices

Confirming That a Drive is Not Damaged (Drive Check)

You can check the drive you are using to make sure it can be read correctly. This is referred to as Drive Check.

This provides a way to determine whether a failure during Song Copy (Owner's Manual "Song Condition") or CD-R Backup (p. 126) is due to a problem in the song itself that was saved on disk, whether the problem is with the connections, or if there is a problem of some other kind. If data cannot be read correctly, the display will indicate the song in which the error occurred.
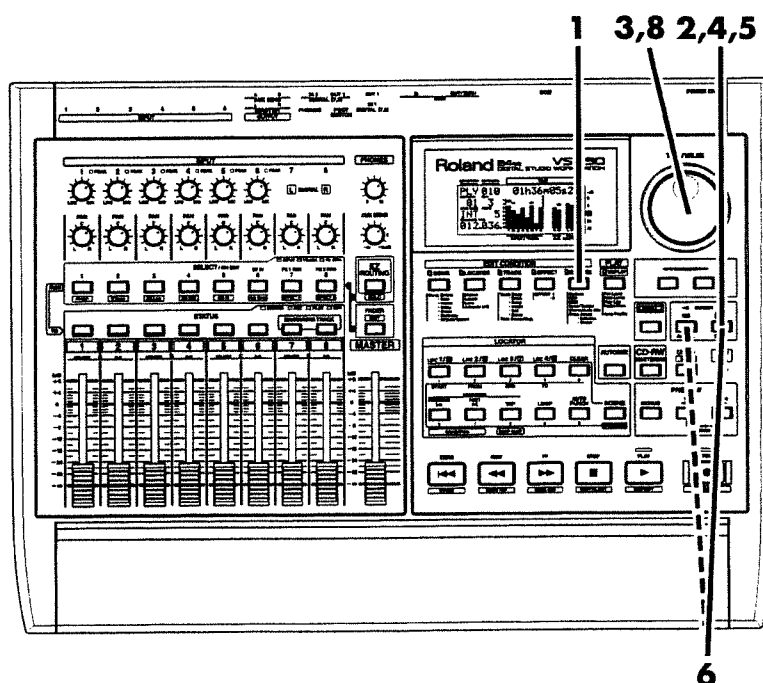
1 Press **[SYSTEM]** several times until "SYS Drive Check ?" appears in the display.

2 Press **[YES (ENTER)]**.

3 Rotate the **TIME/VALUE dial** to select the drive that you wish to check.

4 Press **[YES (ENTER)]**. A confirmation message ask you that you want to proceed with the Drive Check appears in the display.

5

Press **[YES (ENTER)]** again. "STORE Current?" appears in the display.

6

If you wish to save the current song, press **[YES (ENTER)]**; if not, then press **[NO (CANCEL)]**. If you have selected a protected song, then press **[NO (CANCEL)]**.

7

Drive Check is the executed. Progress of the operation is shown in the display. Do not turn off the power until the operation is completed.
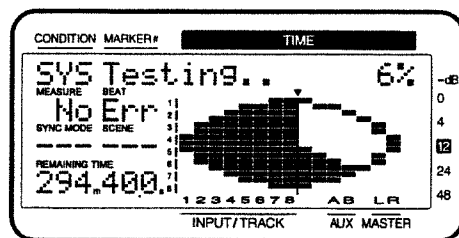
8

When Drive Check is completed, the display screen appears as shown below.
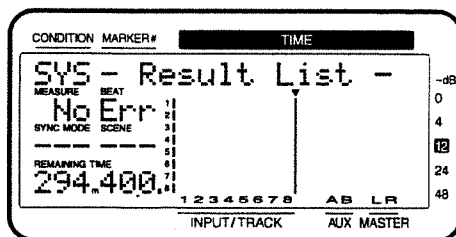
You can use the following procedure to cancel the Drive Check.

1. Press **[NO (CANCEL)]**. "Cancel?" appears in the display.

2. Press **[YES (ENTER)]**. Drive Check is canceled.

If the display indicates "No Err"

The entire disk could be read correctly. Press **[YES (ENTER)]**. Return to Play condition.

If the display indicates "___ Err"

The underlines portion will display the number of times that a read error occurred. Rotate the **TIME/VALUE dial** to check the list. The display will indicate "Err" for locations where an error was found. Locations for which "OK" was displayed have no problems.

```
CONDITION  MARKER#  ███████ TIME ███████
SYS InitSong 001:Err      -dB
MEASURE  BEAT          1               0
--- --- --            2               4
SYNC MODE  SCENE       3              [12]
--- --- --            4               24
REMAINING TIME         6
294.400.              8               48
         1 2 3 4 5 6 7 8   A B  L R
         INPUT/TRACK      AUX MASTER
```

ResultList (Drive check results)

System: Location where basic data used by the VS-890 for recording and playback is stored

SongList: Location where the saved songs are managed

InitSong001: Each song (in actual use, the song name is displayed)
InitSong002:

:

InitSong 200:

ClusterInfo. (Cluster information)

Total: Number of clusters on the entire disk

Defect: Number of clusters tagged as unusable memory

Used: Number of clusters currently being used

Free: Number of clusters currently not being used

X-LinkErr: Number of cross-linked clusters

LooseArea: Number of clusters whose links are lost

IllegalDIR: Number of directories with incorrect content

ReadError: Number of read errors detected by this operation

If a disk error is found, it is possible to erase only the data that was lost as a result of the error (Recover). I.e., the disk can be restored to a correct operating condition while keeping as much possible of the non-error data.
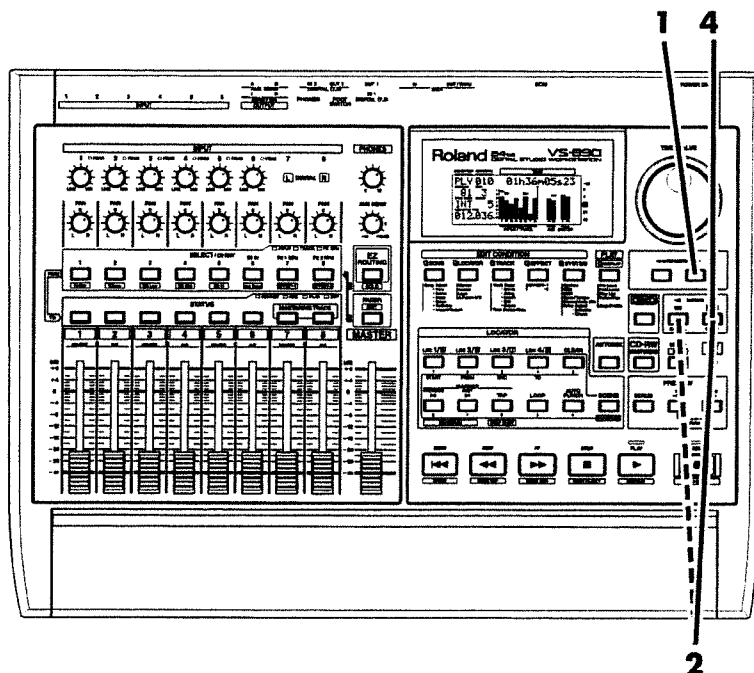
1

Press **PARAMETER [►►]**. "RecoverDriveTry?" appears in the display.

2

The message "You'll Lose Data" will appears in the display. Press **[YES (ENTER)]**. The Recover operation is executed. If you want to cancel the operation, press **[NO (CANCEL)]**.

3

When the recovery is finished, the results are shown on the display screen. Songs that have been partially altered are indicated by "Adj"; deleted songs are indicated by "Del." Songs that have not been changed are not indicated. Please check the display.

4

Press **[YES (ENTER)]**. Return to Play condition.

NOTE
This procedure does not correct the disk error. All error locations will be erased. This means that depending on the location in which the error occurred, a take that was recorded may no longer be playable, auto mix data may be lost, or even the entire song itself may be erased. If the error has occurred in the system or song list, the probability of this danger is especially high.

Appendices

RecoverResult (Recovery result)

InitSong001:   Adj (Modified song)
InitSong002:   Del (Erased song)
:
InitSong200:   Del

ClusterInfo. (Cluster information)

Total: Number of clusters on the entire disk

Defect: Number of clusters marked as unusable memory

Used: Number of clusters currently being used

Free: Number of clusters currently unused

Clusters

These are the smallest unit of memory that the VS-890 uses to manage data on a disk drive. The smallest physical units on a disk drive are called either sectors or blocks, and depending on the device, the size that is handled can be selected. For example, the VS-890 is designed to use disks with 512 bytes/sector. When the VS-890 manages song data, it handles 64 sectors as a single unit (cluster). This means that 512 (bytes) x 64 (sectors) = 32768 bytes (32 kilobytes) is one cluster.

Cross Link

This is an error in which a cluster is detected as being included in two or more songs. In such a case, a completely different song may be heard in the middle of a song. Such an error condition is referred to as a cross link.

Loose Areas

An error in which clusters not included in any song are detected as containing valid data. In this case, the VS-890 will not store data in those clusters. A situation which causes this error to occur is called a loose area.

Directories

The VS-890 stores data such as audio data or parameter values on disk in units called files. In order to manage large numbers of files, the VS-890 keeps lists of file names and the locations on disk in which the data of these files is stored. These lists are called directories.
The "IllegalDIR" message will appear when this list is incorrect. For example, this message will appear if the data of a certain file is supposed to be recorded in an area of the disk which does not actually exist, or if the list itself becomes permanently unreadable.

Change partitions (Drive Select)

Each partition on the VS-890's disk drive is treated as an independent drive, with each partition automatically given a partition number (0–9). When a single hard disk has multiple partitions, you can specify which partition of which drive will be used. This disk drive partition currently used is referred to as the current drive.

1

Press **[SYSTEM]** several times until "SYS Drive Select" appears in the display.

2

Press **[YES (ENTER)]**.

3

Rotate the **TIME/VALUE dial** to select the disk drive to which you want to change. The internal hard disk will be shown as "IDE:∗," and external disk drives will be shown as "SC0:∗–SC7:∗." The number following each disk drive indicates the partition number. For example if you wish to switch to the Zip drive, select "SC5:0."

```
CONDITION MARKER#          TIME
SYS Select Drv=IDE:1   -dB
MEASURE  BEAT
```

4,5

6

4

Press **[YES (ENTER)]** again. A confirmation message appears in the display.

5

Press **[YES (ENTER)]** again. "STORE Current?" (Store the current song?) appears in the display.

6

If you wish to save the current song, press **[YES (ENTER)]**; if not, then press **[NO (CANCEL)]**. If you have selected a protected song, then press **[NO (CANCEL)]**.

7

After you have switched the current drive, return to Play condition.

MEMO

When a non-VS-890 type of song (such as one in the VS-880 or VS-880EX format) is selected as the current song, "STORE Current" will not be displayed.

NOTE

The contents of the protected songs cannot be changed or overwritten (Song Protect; p. 66). You cannot save operation with the protected songs. This means if you press **[YES (ENTER)]** at Step 6 when a protected song is selected, the message "SONG Protected" will appear, and the procedure cannot be continued.

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Roland Corporation